MAY 2011 | #116 | £4 / €7 / $13
WWW.DEVELOP-ONLINE.NET

develop

GAME DESIGN | CODING | ART | SOUND | BUSINESS

WAIT TILL YOU SEE WHAT THEY'RE DOING

PLAYGROUND GAMES *ARE HIRING*

www.playground-games.com/careers

You know how it is. We can't talk about what we're working on just yet.

But there's plenty we **can** talk about.

We've got a leadership team with decades of industry experience. We've got a core team with a track record that's wall-to-wall quality. And we've got a bright, airy studio located right in the middle of beautiful Royal Leamington Spa.

So when we do tell candidates about our partner and our project, it's the icing on the cake.

But don't take our word for it. Ask some of our recent recruits...

"It was the Playground team's background that first got me interested in them. I liked that they'd broken away to set up their own studio and that they were so passionate about it. However, when I heard about the project they're working on I was blown away and just wanted to be a part of it."

ANTHONY FILICE
ART DIRECTOR
JOINED FROM BIZARRE CREATIONS

"I joined Playground because the idea of building a start-up, with the freedom to pursue our own ideas and create something really special, appealed to me. There is a real creative buzz around the company and I love being part of a world class team."

KARL HAMMARLING
LEAD GAMEPLAY ENGINEER
JOINED FROM CODEMASTERS

"I had been looking around for several months for the right career move when I started talking to Playground. I was immediately struck by the experience of the team, and then they told me what the project was! Working in Leamington Spa on a AAA title – what's not to like?"

MATT OSBOND
SENIOR TECHNICAL ARTIST
JOINED FROM RARE

Playground Games

T 01926 338 338 E tellmemore@playground-games.com

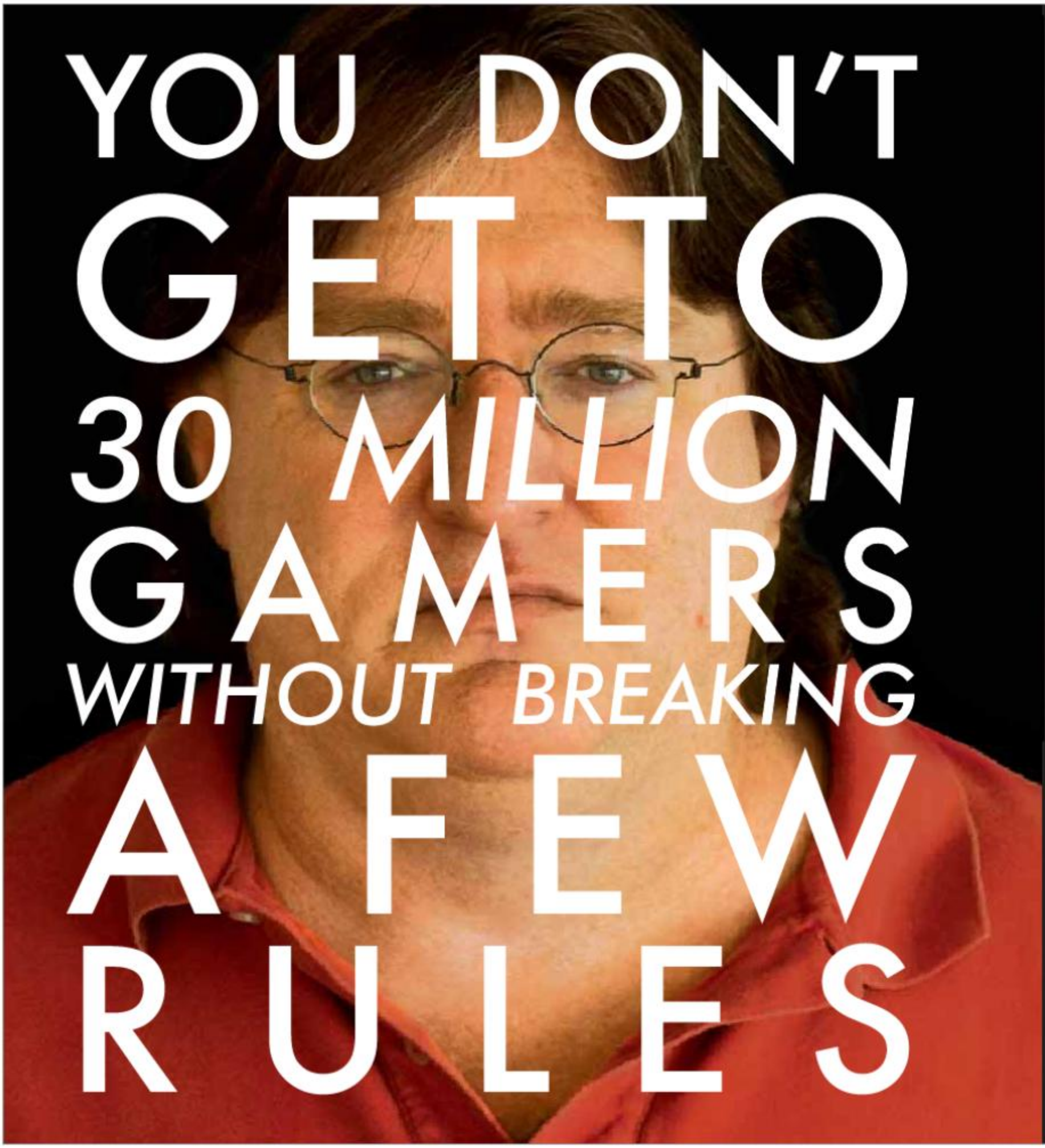
@WeArePlayground **Follow us** on LinkedIn and Facebook

see back page for more...

MAY 2011 | **#116** | £4 / €7 / $13
WWW.DEVELOP-ONLINE.NET

develop

GAME DESIGN | CODING | ART | SOUND | BUSINESS



YOU DON'T GET TO 30 MILLION GAMERS WITHOUT BREAKING A FEW RULES

Gabe Newell & Valve: The Socialist Network
A Develop Investigation

BLITZ TECH

BlitzTech. Bringing great games
WITHIN REACH
Cross-platform development solution with fully integrated motion control – game pad, Kinect, Move

BlitzTech.com/licensing

realtime:uk

: **Concept Art** - Define and establish visual style.

: **Storyboard/Animatics** - Script, create, visualise; cut scenes and cinematics.

: **Marketing Trailers** - pre rendered CG trailers for commercials and on-line launches.

: **Concept Movies** - Quality benchmark movies to assist the early stages of game development.

: **Press Imagery** - Print resolution stills, for box cover art, magazine covers and point of sale.

: **In-Game Animation** - In-engine animation and cut scenes production.

www.realtimeuk.com

TEL : 01772 682363

Contents

DEVELOP ISSUE 116 MAY 2011

ALPHA

7 - 9 › DEV NEWS FROM AROUND THE GLOBE
Leamington Spa-based Playground Games talks about their recent recruitment boom and the Develop Awards 2011 finalists are revealed

14 - 16 › OPINION AND ANALYSIS
Rick Gibson talks about the trouble with kids and microtransactions; David Braben assesses the relevance of trade shows in the modern games industry and Tatiana Kruse looks at the copyright issues around GUIs

18 - 19 › THE DEVELOP DIARY
Everything you need to know about the Develop Quiz, Nordic Game and the ins and outs of the games industry in May 2011

BETA

22 - 27 › BEHIND THE SCENES AT VALVE
Develop gets up close and personnel with the staff at US mega-studio Valve, and finds out just what makes a games developer a development legend

31 - 33 › LIONHEAD'S CREATIVE DAY
When Lionhead told its staff they had two days to do something creative, the results were something very special indeed – *Develop* reports

34 - 43 › THE DEVELOP AUDIO SPECIAL
The annual *Develop* audio industry focus returns, featuring Audiokinetic, Dolby, Nimrod Productions, The Creative Assembly, Side and many more

47 › BEST PRACTICE: GAME DESIGN DOCS
Liemur director and co-founder Sylvain Liége offers some handy advice on the best way to write a game design document

48 › STUDIO MANAGEMENT FOCUS
Warner Bro's Laura Fryer explains the quickest route to effective studio management ahead of her appearance at Develop in Brighton this summer

BUILD

52 › HAVOK GOES MOBILE
An in-depth talk with the tools giant ahead of its jump into the Android arena

54 › KEY RELEASE: THE VISION ENGINE ON NGP
Develop looks at how Trinigy's engine is getting ready for Sony's new handheld

56 › TUTORIAL: ANIMATING EL SHADDAI
The secrets behind the stunning visuals in Ignition Entertainment's new game

63 › ART: MOTORSTORM APOCALYPSE
Take a look at Evolution's new racer from a whole new angle

develop DIRECTORY 65 -70
STUDIOS, TOOLS, SERVICES AND COURSES

CODA

74 › MY FAVOURITE GAME
Games developer extraordinaire Brenda Braithwaite on her inspirations

We are growing.

Here at Jagex, we are immensely proud to be growing. We have continued to expand and provide fantastic careers for our employees. While it may seem all doom and gloom out there when you read the headlines, at Jagex we celebrate stability and look forward to our future.

So, if you don't already know who we are or what we're up to, maybe it's time you took some notice.

www.Jagex.com/Careers

JAGEX

"It can be frustrating that the UK industry is continually painted in a poor light..."
Mark Gerhard, Jagex, p10

The Develop Awards finalists
p8

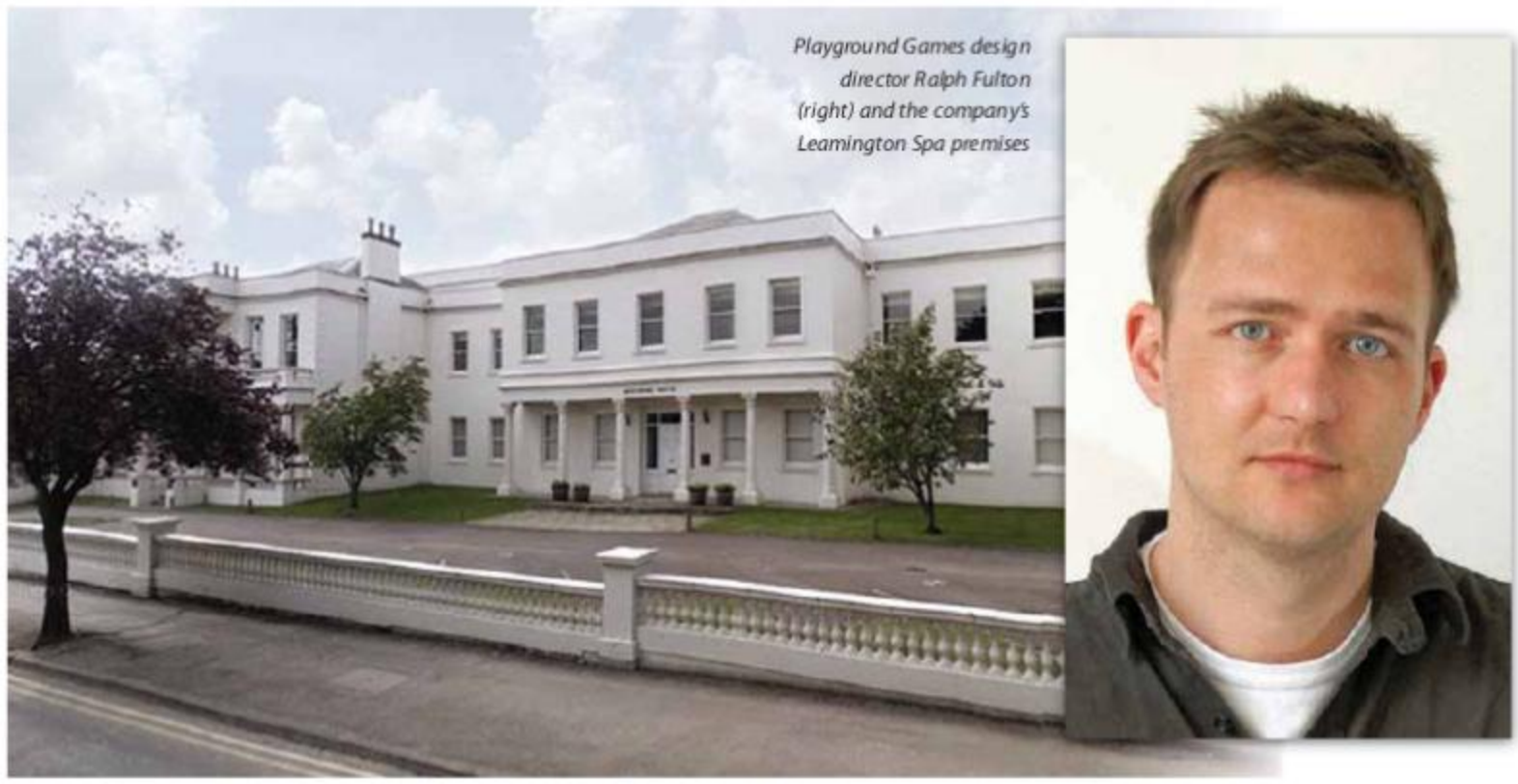
CityVille's success analised
p12

Nordic Game Conference nears
p19

Playground seeking 50 more for top secret triple-A project

Leamington Spa start-up optimistic about UK development scene as it instigates substantial headcount boost

by Will Freeman



Playground Games design director Ralph Fulton (right) and the company's Leamington Spa premises

UK STUDIO Playground Games is looking to hire at least 50 more developers to boost its headcount as production speeds up on an unannounced triple-A project.

The studio, which spent its first year growing steadily to build a core team of 21 staff and establish its infrastructure, is now looking to fill positions across all disciplines and at every level.

Playground's design director Ralph Fulton told *Develop* that despite an explosion in cheap app studios, the team is working on a big budget release.

"Much has been made recently of diversification within games – new platforms, new audiences, new business models – but our focus is creating rich entertainment experiences for the core console gamer, and we believe there are lots of development staff out there who want to do the same," said Fulton.

"Opportunities to work on games of this type are less common than they once were in this country, so we're well placed to attract UK developers who have triple-A experience and wish to continue making triple-A games."

A number of new team members have already joined Playground Games, including senior recruits from recently defunct outfit Bizarre Creations such as lead environment artist Chris Downey and art director Anthony Filice.

> ***"Much has been made recently of diversification within games, but our focus is creating rich entertainment experiences for the core console gamer."***
>
> Ralph Fulton, Playground Games

Playground's growth means it is one of the few UK studios (outside of super-sized outfits such as Jagex, see page 10) actively expanding. Good news for those worried about British games development's place on the global stage.

"Game development in the UK has had a bad couple of years, and is undeniably weaker than it once was, but the end is certainly not nigh, as some have suggested in recent months," said Fulton, before encouraging others to set up new studios in a country often portrayed as a victim of the allure of the affluent Canadian industry.

"The UK remains a good place to start a new studio because it offers an abundance of talented and creative development staff," insisted the design director.

"If we've lost talent in the brain drain to Canada and the US over recent years, we're equally seeing many of those ex-pats returning to Britain – working in a Canadian super-studio isn't for everyone."

Fulton insists that the UK can maintain its relevance, and points to other big budget consoles games like Arkham Asylum and the upcoming Arkham City, Fable 3 and the Grand Theft Auto series as proof of this.

"There is still a serious quality of developer in the UK to rival anywhere in the world," he said.

"We set up Playground Games in order to harness that very quality, and to make games which sit comfortably on that list."

www.playground-games.com

Editorial

A NEW ERA DAWNS

IN THE six years I have been captaining the good ship *Develop* I have never seen Awards lobbying as fierce as I did for this year's event.

If anyone tries telling you that European games development is in ill health, then give 'em a good punch from me.

Forget what they say about subsidies, about disruption, about brain drain. It's all, clearly, a myth. European developers have had a huge part to play in the growth of motion controls, mobile games, online play and the continued fortunes of triple-A console games.

The list to the right proves it – and that's just the best of the best, the cream of the crop, the tip of the iceberg. There are around another 60 or so games or studios that just missed the grade. It's all proof, if it were needed, that games development is in rude health.

Good luck to all those nominated. And see you there on the night.

***

WHEN THE credits roll in *Portal 2*, you see an alphabetical roll call of Valve staff.

No lead this or chief technical that. It's A to Z.

Gabe Newell, the founder of the studio and arguably one of the smartest, most powerful men in games, is nestled somewhere in the middle.

Gabe – as you'll see on the front of this issue – makes for good headlines and even better magazine covers. He is the studio's 'box office'. But don't tell him or anyone else at Valve that, because that isn't how they operate. Gabe is just a cog in the machine, a part of the bigger Valve pump that has churned out hit after hit.

This democratic super-sized studio business seems ridiculous when I explain it to you like that. And certainly, it's not without its flaws; as a game maker, Valve's products are often delayed. But they are consistently brilliant. It also happens to run the most popular PC game distribution platform.

So turn to page 22 to find out how this firm has built something perfect from a structure that the rest of the industry would try to tell you is far from it.

Michael French
michael.french@intentmedia.co.uk

Develop Awards:

95 companies in the running ● 28 games competing ● Nine countries

Clockwise from top: The Awards in full swing, Killzone 3, Minecraft and Kinect Sports

ALMOST 100 games development firms are battling it out for one of 21 accolades at the 2011 Develop Awards.

The finalists have now been confirmed (*see boxout, right*), with 95 firms in total in the running. They hail from nine different countries, with 28 different games represented.

The overall finalists list is incredibly varied, with small indie teams, larger in-house studios, growing independents and format holders all out in full force.

Sony and Xbox have the most finalist slots, with their games and studios taking six nominations each.

In fact, the pair's rival hardware – PlayStation Move and Kinect – go head-to-head in the technical innovation category. Key software and tech in both originated at the companies' respective R&D centres in London and Cambridge.

Elsewhere Epic Games scores five nominations; three for its work on Unreal Engine 3, and two for its Polish studio People Can Fly's *Bulletstorm*.

Other companies with multiple nods include Rovio Mobile (creator of *Angry Birds*) with three nominations, and indie hit *Minecraft* and its creator Mojang Specifications scoring four nominations.

Over 150 outfits of all shapes and sizes – from one man micro studios up to 300+ sized teams – lobbied throughout April to be considered for the development sector's most prestigious awards ceremony.

The Develop Industry Excellence Awards are the only awards designed to reward the creative, commercial and innovative work done by European studios and the firms that support them.

Now, our panel of 100 games development execs from around the world will vote on the winners.

But the victorious studios will only be named on the night of the ceremony itself, July 20th. The event takes place at the Hilton Metropole Hotel, Brighton. Contact ***Kathryn.Humphrey@intentmedia.co.uk*** or call 01992 535 646 to attend.

The event is sponsored by Amiqus and Supermassive Games (Gold Sponsors), OPM Jobs (Table Gift Partner), Babel Media (Development Legend Award Partner) and Gamecity Hamburg (Event Partner).

More spoonsorship opportunities are available – contact ***Alex.Boucher@intentmedia.co.uk*** for more detailed information.

2011 finalists revealed

represented ● One show: Awards take place on July 20th to honour the best games developer in Europe

THE FINALISTS

CREATIVITY

NEW IP
Enslaved (Ninja Theory)
Kinect Sports (Rare)
Kinectimals (Frontier)
Bulletstorm (People Can Fly)
Brink (Splash Damage)

NEW DOWNLOAD IP
Limbo (Playdead)
Hydroventure/Fluidity (Curve Studios)
Dead Nation (Housemarque)
Tiny Wings (Andreas Illiger)
Amnesia: The Dark Decent (Frictional Games)
Minecraft (Mojang Specifications)
Super Meat Boy (Team Meat)

USE OF A LICENCE OR IP
Mr Men / Little Miss (Digital Goldfish)
FIFA Superstars (Playfish)
Need For Speed Hot Pursuit (Criterion)
GoldenEye 007 (Eurocom)
Michael Jackson: The Experience (Ubisoft Paris)
Jenga (NaturalMotion Games)
Angry Birds Rio (Rovio Mobile)
F1 2010 (Codemasters Birmingham)

VISUAL ARTS
Enslaved (Ninja Theory)
Limbo (Playdead)
Bulletstorm (People Can Fly)
MotorStorm Apocalypse (Evolution Studios)
Crysis 2 (Crytek)
Killzone 3 (Guerilla Games)
Shogun 2: Total War (The Creative Assembly)

AUDIO ACCOMPLISHMENT
Enslaved (Ninja Theory)
Limbo (Playdead)
Fable III (Lionhead)
Kinect Sports (Rare)
Crysis 2 (Crytek)
DJ Hero 2 (FreeStyleGames)
Papa Sangre (Somethin'Else)

PUBLISHING HERO
Namco Bandai
SCEE XDEV
Valve
Lockwood Publishing
Channel 4
EA Partners
Microsoft

TECHNOLOGY & SERVICES

TECHNICAL INNOVATION
Razor for NGP (SN Systems/SCE R&D)
Kinect Sports (Rare)
PlayStation Move (SCE Vision R&D/User Testing Team/Creative Development Group)
Kinect (Microsoft Research Cambridge)
Unreal Engine (Epic Games)
Havok Mobile (Havok)
Path of Go AI (Microsoft Research Cambridge)

VISUAL OUTSOURCER
Atomhawk Design
Cubic Motion
RealtimeUK
Fireproof Studios
Slide
Axis Animation
Spov

AUDIO OUTSOURCER
High Score
Media Mill
Side UK
Richard Jacques
Nimrod Productions
Air Edel

SERVICES
Audiomotion
Universally Speaking
Babel Media
Testology
SQS India
U-Trax
Testronic Labs

RECRUITMENT
Amiqus
Aardvark Swift
Avatar Games
OPM Recruitment
Specialmove
Datascope
MPG Universal

TOOLS PROVIDER
Donya Labs
Hansoft
Unity
Autodesk
Havok
NaturalMotion
Epic Games

ENGINE
BlitzTech (Blitz Games Studios)
Unity (Unity Technologies)
CryEngine 3 (Crytek)
Vision Game Engine (Trinigy)
Shiva3D (Stonetrip)
Unreal Engine 3 (Epic Games)

STUDIOS

NEW STUDIO
Rodeo Games
Supermassive Games
Playdead
Mobile Pie
Future Games of London
Ruffian Games
Mojang Specifications

MICRO STUDIO
Rodeo Games
Revolution Software
Mobile Pie
That Game Studio
Frictional Games
Mojang Specifications
Andreas Illiger

HANDHELD STUDIO
Exient
Ideaworks Game Studio
Sports Interactive
NaturalMotion Games
Rovio Mobile
Erik Svedäng

BUSINESS DEVELOPMENT
nDreams
Blitz Games Studios
Eutechnyx
Curve Studios
Mind Candy
Bigpoint
Lightning Fish

IN-HOUSE STUDIO
PopCap Dublin
Sports Interactive
Traveller's Tales
Ubisoft France
Criterion Games
Media Molecule
Codemasters Studios

INDEPENDENT STUDIO
Playdead
Sumo Digital
Crytek
Mind Candy
Team Meat
Mojang Specifications
Rovio Mobile

SPECIAL RECOGNITION PRIZES
Development Legend & Grand Prix
Winners of these will be annouced on the night

develop
INDUSTRY EXCELLENCE AWARDS

Optimus Primed and ready

Having signed up to make a browser MMO based on Hasbro's Transformers, Jagex is expanding intensely, having just welcomed 81 new staff to the fold. **Will Freeman** talks to CEO Mark Gerhard about getting ready for a busy future...

Jagex's huge team (top) is expanding significantly, under the watch of CEO Mark Gerhard (above).

Jagex has just welcomed a huge new number of staff into the fold. What's going on at your studio to motivate what is a substantial recruitment push, even by Jagex's standards?
We have been recruiting heavily for the past year as we have so many big projects currently in development, ranging from substantial upgrades to *RuneScape*, our upcoming sci-fi MMO *Stellar Dawn*, *Transformers* browser MMO, *8 Realms* and massive improvements to our game development platform.

There is an incredible buzz around the office right now as we have added a staggering 81 new members to our family and still have 67 positions still to fill. It's a very exciting time.

Is it true that you've welcomed a new studio head to team?
We do not have one studio head, as we have a number of large studios all with their own games in the making that operate independently from each other therefore each Studio requires the own management.

We've just filled the VP of *Transformers* vacancy, but we still have a open role for the VP of *8 Realms* which we are really excited about as one of the first 'core casual' games for the social networks.

And you have a particularly number of vacancies to fill? What kind of roles are you still looking for?
We are quite literally expanding every function right now and so have roles across most disciplines. We have a large number of positions available in marketing as well as game engine, tools and tech, which we are of course always keen to fill as quickly as possible with the best talent that shares our passion and values.

Is finding quality talent in the UK still relatively easy, or are you looking to employ from further afield?
Finding the right talent is never 'easy' but we have a fantastic pool of talent here in the UK to draw upon. We recently hired large numbers of people through the unfortunate closures of Real Time Worlds and Bizarre Creations and so we were able to retain key talent here in the UK, which we are very proud of.

> ***"It can be frustrating that the UK industry is continually painted in a poor light when there are still studios, like us, that are stable, growing and profitable."***
>
> Mark Gerhard, Jagex

Having said that, we are keen to acquire the very best talent in the industry, so we certainly don't limit ourselves to just the UK. Jagex offers a fun, phenomenal working environment, with world-class teams, ground breaking and at times world leading projects to work with and on, so finding the very best people is what it is all about. Naturally if we can find that person from the pool of amazing talent here in the UK then we certainly will.

What is it about Jagex that lets you continue to thrive when many UK studios are finding it hard?
We've clearly been blessed with a bit of luck and we never take that for granted. We have a very focused, hard working team that are not only hugely talented, innovative and committed to developing great games and game content but also focus heavily on listening to our community.

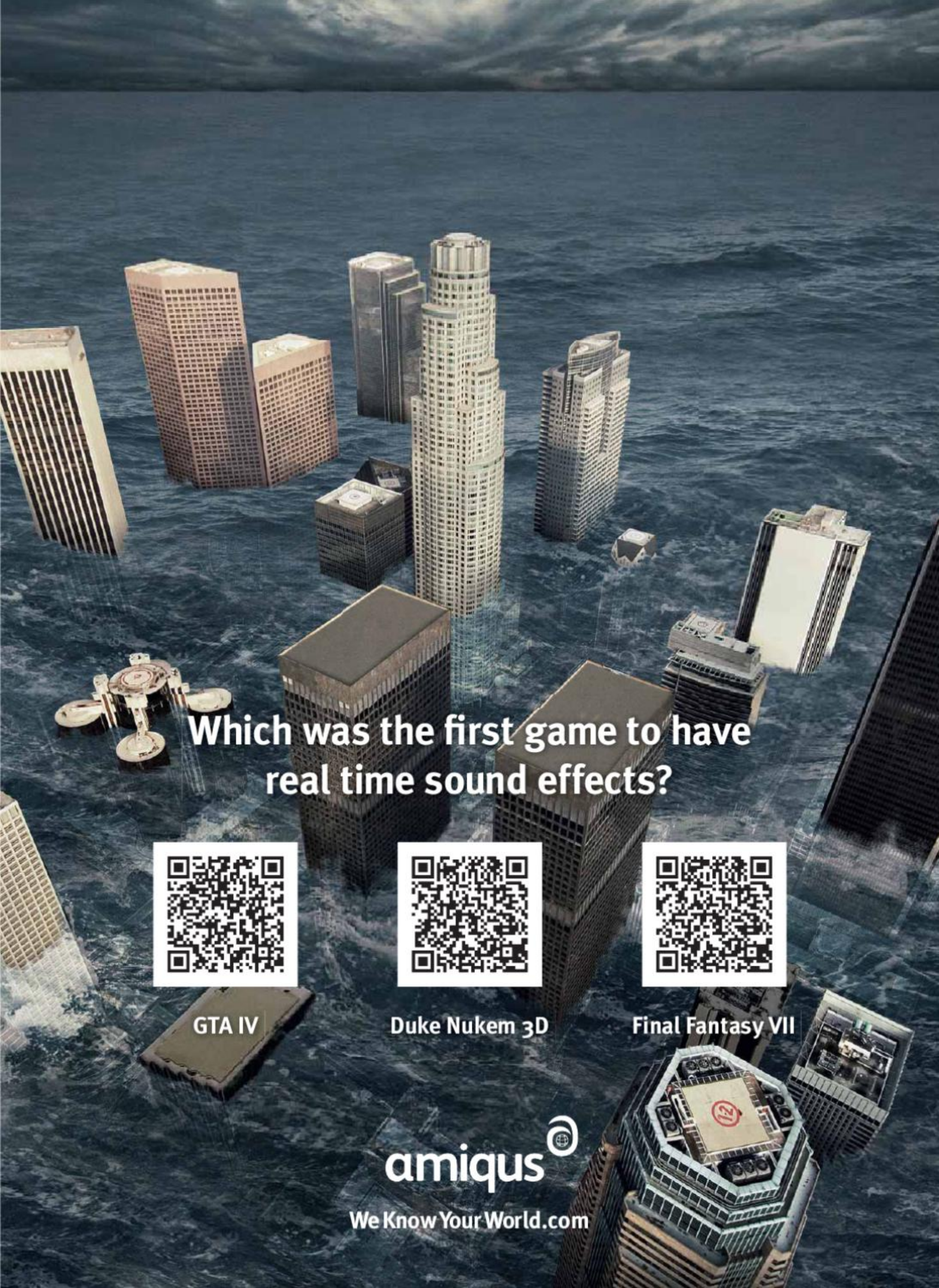
This allows us to be very efficient as an organisation, in touch with players, as well as keeping ahead of the emerging trends in the online games space.

I believe that the UK games space is very hard for everyone at the moment no matter how successful you are or were. However, due to our diversity of talent and strong base we are able to continue to recruit new talent into our teams as well as continually developing our existing talent.

Strategically, now is a great time to be recruiting as there is a lot of talent out there, and available to us, that were the industry stronger we may not see. This means we can, and are, growing our studios with great people which is what is essential if you plan to build an even stronger and successful company for the long term.

Do you think pessimism about the state of the UK games industry is over-exaggerated, or realistic?
I don't think it's drastically over exaggerated, and sadly we have seen firsthand from visiting many studios that have unfortunately gone under just how severe some of the issues facing our industry are. But it certainly isn't all doom and gloom either and there are still a lot of very exciting opportunities out there. It can be frustrating that the UK industry is continually painted in a poor light when there are still studios, like us, that are stable, growing, profitable and working on exciting new games or technology. One just has to hope that the headlines aren't taken too literally and that people are still aware of the fantastic opportunities available in the UK.

What else does Jagex have planned for the coming months beyond hiring?
It's certainly evolution or extinction in both the technology and entertainment spaces. Jagex have operated under the radar for almost a decade quietly whispering 'nothing exciting going on over here – look over there', whilst at the same time working diligently on numerous fun and ground-breaking projects, earning a wealth of invaluable lessons along the way. The coming year or so will begin to showcase just some of these enormous efforts ranging from evolving our existing games, dramatically improved tech, completely new games through to Jagex ultimately opening up our own proprietary platform to other developers to use.
www.jagex.com


Which was the first game to have real time sound effects?
GTA IV
Duke Nukem 3D
Final Fantasy VII
amiqus
We Know Your World.com

ANATOMY OF A BLOCKBUSTER

Our monthly dissection of a recent hit game...

CityVille

PUBLISHER: Zynga

DEVELOPER: Zynga

FORMAT: Facebook

PRICE: Free-to-play (various pay-to-play expansions)

www.zynga.com

Zynga's CityVille offers something that sits between SimCity and Tamagotchi

THE SENSATION

FarmVille did it. Or maybe it was *Café World*. There was also *Mafia Wars*. It could have even started with that game.

The untamable lust that exists for a very particular style of semi-RTS social network title is undeniable. Where it began is very difficult to pinpoint, even only these few years after the games themselves began to appear online.

Zynga, the superpower of the social games industry, has wisely flooded the market with a daunting array of '*Ville*'-esque titles, and still the demand for them flourishes unabaited. Run your own resteraunt. Run your own frontier town. Run your own, um, aquarium. If you can imagine it, the chances are there'll be a social network game where you can run it. With the release of *CityVille*, Zynga took the next logical step in scaling the equation up from its agricultural begginings.

THE GAME

In terms of gameplay, *CityVille* sits somewhere inbetween *SimCity* and a *Tamagotchi*, though with any threat of death for the wandering inhabitants of your very own metropolis removed to fit in with the game's simple, block-colour aesthetics. The opening stages of the game are made up of a gentle series of challenges that teach the player how to use the well laid out UI, as well as the basics of civic planning within the *CityVille* universe.

With this knowledge in-hand, the game opens out into the same socially-focussed machanic that Zynga has become so well-known for. Resources for city-building can be shared between friends, and businesses in other people's cities can be established and milked for cash. Citizens pay rent, crops need harvesting, shops need supplies and your ever-expanding burg needs an ever-expanding infrastructure. Somewhat controversially, and as with all of Zynga's titles, playing the game to its fullest extent requires a microtransaction frenzy on the part of the player every time a new update is released.

THE STUDIO

Zynga is almost certainly one of the most devisive studios making games today. It is hailed by some as a great equaliser bringing games to those who would otherwise not play them, and by others as a chancer getting lucky on the lowest common denominator, it is a company not without controversy.

What cannot be argued is the outstanding levels of business finesse that the studio has developed, and the inordinate number of loyal fans that it has, all of whom have been entertained by its games. In an industry that has been undergoing a near-constant shift in focus since birth, Zynga has been wise enough to identify a huge and mostly untapped market, fast enough to corner a large part of that market and clever enough to make its products compelling and inclusive enough that anyone can play them.

UNIQUE SELLING POINT

'Unique' is a difficult word to use in relation to a game that draws so much from the successes of gaming history for its charms. There is a level at which the compilation effect that is produced has a brilliant attraction all of its own, however. After the monolithic success of any and every game that featured the word 'Sim' in its title from 1989 to 2005, Zynga has filtered the greatest hits of those games into an experience that is available to anyone with a Facebook account and some free time.

The reasons *CityVille* has done as well as it has are two-fold. Firstly, the attraction of building a personal world is universal, and taps in to a fundamental enjoyment in the notion of total control that is a shared trait in human beings. Secondly, it's on Facebook.

WHY IT WORKS

The monetisation element of Facebook gaming has certainly raised a few heckles in its time, but it has also served as the engine to an online gaming revolution. While the argument as to the future of games retail continues to rage, Zynga has served as one of the primary companies cultivating an almost entirely new industry born of social networks. This works because the audience makes itself and is as captive as an audience has ever been. When this market is offered experiences intelligently tailored to appeal to as much of it as possible, it won't turn its nose up.

When these experiences contain an almost limitless potential for replay value, both studio and audience hit upon an everlasting well of supply and demand that neither party will ever wish to see abandonned. The more Zynga puts in, the more it can draw out.

TRY IT YOURSELF

The Facebook games phenomenon is far from over. Indeed, it may well represent the shape of things to come. Considering that, there is no way that someone seeking to grab their own slice of cake can do so without putting in a good deal of hard work.

The '*Ville*' franchise, while eandearing on a visual level and ingeneous on a gameplay one, is a very slick and well calculated product. Zynga has offered just enough of a game that anyone can get involved and enjoy an impressive amount of gameplay variation and interaction with other players.

Once a player has become committed, a wealth of monetised options are also available that, while arguably not expanding gameplay a great deal, are clearly very attractive to committed fans. This formula has proved a goldmine for Zynga because the company has dedicated so much of its time to understanding the wants of a broad gaming audience, and catering to those wants entirely.

around the Arab world there are more than 180 million people under the age of 25*.

yet Arabic game development is still in its infancy.

your opportunity is right here, right now at twofour54° in the heart of Abu Dhabi.

The Arab world is one of the world's fastest growing media markets. With a young population of 180 million under the age of 25, more than 80% with mobile phones*, strong broadband take-up and new gaming innovations, it's a prime opportunity for Arabic gaming businesses.

We empower businesses across all media platforms from production, gaming, digital, animation, broadcast and publishing – with world-class training from **twofour54° tadreeb**, state-of-the-art production facilities with **twofour54° intaj** and venture funding and support for Arab creative entrepreneurs from **twofour54° ibtikar** – to seize every media opportunity the region has to offer.

It's all part of our vision at **twofour54°**, creating a centre of excellence for Arabic content creation in Abu Dhabi.

we are twofour54°. are you?
find us. join us. create with us.
+971 2 401 **2454** **twofour54**.com

twofour54
Abu Dhabi

content creation community

*Sources: Arab Media Outlook 2010, Media on the Move 2009, A.T. Kearney, Introduction to Gaming, Michael Moore, Screen Digest, IDC.

twofour54° is an initiative of the Abu Dhabi Government.

//COMMENT: BUSINESS

Understanding Smurfgate

by **Rick Gibson**, Games Investor Consulting

It looks innocent, but initially Capcom's Smurf iPhone game attracted parental scorn for a microtransactions system abused by kids

WHEN MADISON, an eight-year-old from Maryland, purchased nearly £1,000 of Smurf-themed virtual currency in one month on an iPhone game without her mother's permission, the mother loudly complained, galvanising Apple, legislators and the Federal Trade Commission.

Whose responsibility was 'Smurfgate,' what are the commercial implications and could this initiate a fractious new argument about the ethics of microtransaction games for kids?

Smurfs' Village is Capcom's *FarmVille* clone on iPhone, with classic sim gameplay and virtual currency bundles ranging up to $99.99. Apparently Madison's mother downloaded the free game, logged in, and handed the phone to her daughter – who quietly bought wagonloads of Smurfberries, the game's virtual currency.

This was possible because until recently Apple allowed unlimited in-app purchasing without additional password confirmation for 15 minutes after log-in. Why Apple allowed this is somewhat baffling, as was its long delay in enforcing a password prompt for all in-app purchasing post log-in; an inevitable, potentially costly step could reduce revenue by raising friction in many freemium iOS games.

CAUGHT IN A TRAP

Capcom inadvertently fell into a commercial tank trap well known to seasoned developers of younger-skewed virtual worlds and MMOGs – bill shock triggered by uncontrolled microtransaction-based purchasing by children. Few online games targeting under-13s use uncapped microtransactions because operators fear parental backlash and credit card chargebacks.

These developers often try to reassure parents by promoting features like safe environments, moderation, restricted player communication and mildly educational content. Commercial model is important; games should appear good value, thus predictable subscriptions work and uncapped microtransactions are problematic.

Microtransactions can work if they are subscription-based (effectively monthly allowances of virtual currency), or allow monthly spending limits. Both models are

> ***"Capcom inadvertently fell into a commercial tank trap well known to seasoned developers of younger-skewed virtual worlds and MMOGs."***

increasingly popular in tween/teen online games. Capcom uses no caps and only posted warnings that virtual currency costs real money following complaints. It's debatable whether parents would notice or younger players understand. With the top-nine in-app purchases averaging $22.99, some (whether children or adults) spend significantly in Capcom's successful, commercially aggressive game.

If Madison's mother ignored the premium virtual currency and Apple's complex controls regulating in-app spending, she may have been reassured by Apple's 4+ rating, mistakenly so because neither PEGI, ESRB nor Apple assess whether business models are appropriate for children. The ratings bodies struggle to certify these products at all.

Even Disney's *Club Penguin*, one of the safer kids' virtual worlds, has no PEGI Online rating. With tens of thousands of online games released every year, PEGI and ESRB are like King Canute trying to hold back the sea and it's unlikely the contentious area of microtransactions for young children will ever be certified.

SOME MOTHERS...

Many will argue the parent bears most responsibility. She may brand Apple's inadequate spending controls and Capcom's absent labelling as accidents waiting to happen, and will feel vindicated after receiving a refund but she clearly shirked her responsibility for regulating her child's purchasing and understanding what she allowed Madison to play.

That didn't stop a congressman successfully asking the Federal Trade Commission to investigate in-app purchasing, whose early feedback probably triggered Apple's pre-emptive policy switch. This investigation could open a real can of worms by examining children's use of a much larger platform, Facebook. Here, officially everyone is over the age of 13, but (says ComScore) nearly four million US Facebook accounts are underage.

As social networks usage rises and some games providers blur age limits, massive abuse of minimum ages by children in games risks becoming a headline issue. Again.

Hard commercial reality would have eventually forced Apple to do what Capcom, legislators and ratings would not. Chargebacks demanded by parents of kids splurging on Smurfberries prompt credit card providers to reclaim funds from the payment collector Apple. Such chargebacks could damage Apple's vendor status and may inevitably force more changes on content partners.

All parties must share some responsibility for rousing the legislators and the 'scandal' may have burnt itself out but this could become an opening salvo in a wider campaign. We may find ourselves in uncomfortable territory discussing new boundaries for child protection.

Rick Gibson is a director at Games Investor Consulting, providing research, strategy consulting and corporate finance services to the games, media and finance industries.
www.gamesinvestor.com

//COMMENT: INDUSTRY

Real Shows vs Virtual Shows

by **David Braben**, Frontier Developments

A retail event like E3 may seem less important to developers these days, but the excitement the show creates is unmatched

WE'RE AT that time of year when we prepare shiny demos for the all important E3 show; where buyers for the big chains place or affirm their pre-orders – hopefully – for our latest creations, and marketing budgets are set in plenty of time for the long lead up to the Christmas season.

Or at least that is the case for those of us still making shrink-wrapped games for physical distribution. If a game is to be distributed purely digitally, then these big chain pre-orders no longer apply.

Marketing budgets still need to be set, but a time can be chosen to gauge the public interest that is not at exactly the same noisy time everyone else is clamouring for attention. In fact it can be done much closer to the time of release as much of the marketing will be online too, with shorter lead times required.

In addition, much of the growth of our industry is no longer covered by E3. The focus at E3 tends to be on console, handheld or otherwise, and only tangentially embraces new platforms like iOS, Android, and the web via Facebook et al.

THE SHOW BUSINESS

This all sounds very straightforward. We need physical shows for physical goods, so perhaps the days of the big shows like E3 are numbered? Look at the Oscars and the Cannes Film Festival for the film industry. Well, we have the BAFTAs, which do a great job of evangelising games post-release, but E3 still has an important role pre-release, perhaps closer to the spirit of of the Cannes festival.

The hullabaloo created by E3 is very good for our industry, both for hardware and software. It builds anticipation for the gamers in the audience too, me included. Although as many will also have experienced, there is a bizarre effect that even when I am at the show, I found I still tend to hear many of the new announcements online, and some of the most interesting games and technologies are shown behind closed doors. This set me thinking about how the most expensive parts of the show – the expensive stands in a very expensive LA setting – are possibly the least useful to the wider gaming community.

> ***"The E3 hullabaloo is very good for our industry, both hardware and software. It builds anticipation for the gamers in the audience too, myself included."***

NOISE ANNOYS

From the games point of view the really useful bit is the journalists getting together from all over the world and kicking the collective tyres of the forthcoming releases, and the buzz and excitement it creates. For a long time this usually happens away from the show floor, even at different external venues, partly because the show floor is too noisy.

The irony of this is it defeats a big part of the purpose of the show – to show off the games. Much of the growing 'indie' and more social side of the market are not covered by E3 either; it is perhaps too expensive and doesn't feel relevant.

The excellent BAFTA awards were further extended this year to cover social network games, and associated with the awards we saw a great deal of coverage for one of my favourite games of last year, *Limbo*, even though it didn't win.

The function of the BAFTA awards is very similar to the Oscars in film and is a big part of the PR for the industry as a whole, including the great indie side, for games post-release.

E3 is a great venue for shrink-wrapped games pre-release, and doubtless EA will show some of Playfish's output, but we will see soon whether it expands to cover the ever more important online space like XBLA, PSN, iOS, Android and social networking. Or perhaps we need something new.

David Braben is the founder of Cambridge-based Frontier Developments. Best known as the co-creator of *Elite*, Braben has contributed to, designed or overseen a number of other projects including *Frontier: Elite II*, *Dog's Life*, *Thrillville* and *LostWinds*. Frontier is currently developing his next title, *The Outsider*. He is also closely involved with Skillset.
www.frontier.co.uk

//COMMENT: LAW

Copyright in GUIs

by **Tatiana Kruse**, Games Investor Consulting

Tricky copyright laws surround every aspect of a game – even its user interface

© Court of Justice of the European Union

THE SOFTWARE Directive (91/250/EEC) is the foundation of the application of copyright protection to software in the European Union.

The Court of Justice of the European Union (CJEU) has now found that the Software Directive does not confer protection on a GUI, because a GUI is not a computer program. Copyright may, however, subsist in a GUI in the same as in other literary or artistic works, where it is the author's own intellectual creation.

The case in question is Bezpečnostní softwarová asociace – Svaz softwarové ochrany v Ministerstvo kultury, December 2010.

INTERFACE VALUE

As discussed in my previous *Develop* article, the ideas and principles which underlie a computer program, including those which underlie its interfaces, are not protected by copyright under the Software Directive.

Indeed, generally speaking, it is the expression of ideas and principles, not the ideas and principles per se, which attract protection. Moreover, under the Information Society Directive (2001/29/EC), subject to certain exceptions, copyright entitles the holders to prohibit reproduction of their works, whether in transient or permanent form, and including by communicating those works to the public.

In this recent case, the Czech Ministry of Culture rejected an application by the claimant, BSA, for authorisation for the collective administration of copyrights in computer programs, on the grounds that copyright did not protect the display of those programs on the computer screen. Litigation ensued, and the Czech Supreme Administrative Court asked the CJEU whether (i) a GUI is a form of expression of a computer program and thus protected by copyright, and (ii) television broadcasting constitutes making the GUI available to the public.

> ***"The ideas which underlie a computer program, including those which underlie its GUI, are not protected by copyright under the Software Directive."***

DOUBLE NEGATIVE

The CJEU answered both questions in the negative.

It said that the source and object code were the forms of expression of a computer program under the Software Directive; the object of the protection was the form of the program which allowed reproduction in different languages.

Also protected under the Directive was the design work leading to the creation of the program. The Court said that any form of expression of a computer program attracts protection when its reproduction would engender the reproduction of the program itself. A GUI, however, was simply one element of a program by means of which a user could use the program. The CJEU then said that, although the question was not referred to it, it was appropriate to determine whether a GUI could be capable of protection under the ordinary law of copyright. The CJEU found that it could, but not as regards those components differentiated only by their technical function.

A GUI BUSINESS

The CJEU then said that a GUI was not communicated to the public by a television broadcast, because the viewer would not have access to its essential element of providing interaction.

It is difficult to reconcile the CJEU's findings that a GUI could be protected by ordinary copyright with its findings that a GUI is not communicated to the public by a television broadcast.

Tatiana Kruse, of international law firm Salans LLP, is specialised in IP and IT law and has a particular interest computer games. She can be contacted on +44 (0)20 7509 6134.
tkruse@salans.com

Be part of the big picture

Recruiting in the UK

Southam [HQ] | Guildford | Birmingham

www.codemasters.com/jobs
twitter.com/codemastersjobs
www.facebook.com/codemastersjobs

codemasters

© 2010 The Codemasters Software Company Limited ("Codemasters"). "Codemasters" ® is a registered trademark owned by Codemasters. The Codemasters logo is a trademark of Codemasters. All Rights Reserved.

THE DEVELOP QUIZ

A look ahead to the very excellent 2011 Develop Quiz

UK STUDIOS will converge on the 11th of this month at the Sway Bar in Holborn, London, to find out once and for all (until next year) just who is the smartest of them all.

Have you booked your place yet?

Everyone in the games industry thinks that they work with, or indeed are, some pretty sharp individuals. Now is the time to put those intellects to the test, while indulging in more than a little alcohol-fuelled inter-company banter. Put your money where your mouth is and take on your wonderful industry peers at The Develop Quiz.

All industry members – be they studios, publishers, QA, recruitment or localisation companies – are all invited to attend the event, with a full and fierce night of entertainment and competition on offer.

Hurry up, space is limited!

Those wanting to find out more, to book a place or find out about exclusive sponsorship oppourtunities should contact: ***kathryn.humphrey@intentmedia.co.uk***

THE MONTH AHEAD

A look at what May has in store for the industry and beyond…

MAY 1ST:
May Day. Put a strip of turf on your head and party like you're Winston Churchill.

MAY 8TH:
VE Day. Put a strip of turf on your head and party like you're Winston Churchill. Again.

MAY 10TH:
Brink is released. Just don't go thinking that freerunning is as easy as they make it look. Or do, and send the pictures to Develop.

MAY 11TH:
The very excellent **Develop Quiz** is taking place at the Sway Bar in London. Be there!

MAY 14TH:
The Eurovision Song Contest. Get all excited about how much fun you'll have in an ironic way. Realise it's rubbish. Get drunk.

MAY 17TH:
L.A. Noireis released. Trilby sales go up 10,250 per cent overnight.

MAY 19TH:
The Canadian Games Conference, or, The Conference Formerly Known As GDC Canada, kicks off in Vancouver.

MAY 24TH:
F.E.A.R 3 is released. You won't be too comfortable around children with unkepmt dark hair for a little while.

MAY 25TH:
Towel Day. In honour of the late, great Douglas Adams, today is a day for carry towels wherever you go. Whatever you do, Don't Panic.

MAY 25TH:
The outstanding **Monetising Mobile** event returns to BAFTA in London with a focus on mobile payment opportunities for 2011.

MAY 27TH:
The MCM London Expo is go at Excel in London. Dust that old Sephiroth costume off and get your nerdy freak on. You nerd.

MAY 31ST:
Red Faction: Armageddon is released. Space Soviets get their war face on for yet another Martian rumble.

Develop met with conference comms director Jacob Riis to find out what was in store for Nordic Game 2011

NORDIC GAME

WE HAVE worked hard to create the strongest Nordic Game conference thus far," says Nordic Game communications director Jacob Riis, explaining what can be expected from the next conference in the increasingly exciting annual Nordic get together, taking place from May 10th to 12th in Malmö, Sweden.

"The programme is booked with prominent speakers like Jordan Mechner, Ed Fries and Brandon Boyes. Successful companies such as Majong, Codemasters, Microsoft, CCP amd Sony will be present, and they will all be talking about the theme of creativity, and how we as an industry can be better at utilising our collective creative force."

Riis is, understandably, hugely entusiastic about his event, but his enthusiasm has not clouded his understanding of the need for contiual effort to make sure industry events remain relevant to an industry in the throes of titanic and fundamental changes.

"We always invite the Nordic industry to come and be as big a part of the conference as possible, and with the leaders of the countries' producers associations on the Nordic Game advisory board I hope the conference content reflects the industry as it changes," he explains.

"The conference has brought a lot of attention to the region, and we have tried to support that and build on the trend, to create a unique event. A place where the Nordic nationalites come together and share their passion and experience with the rest of the world."

www.nordicgame.com

nordicgame
MALMÖ, 10-13 MAY 2011

DEVELOP DIARY

Your complete games development event calendar for the months ahead…

GAMEHORIZON 2011
June 28th - 29th
The Sage Gateshead, Gateshead
www.gamehorizonconference.com

The GameHorizon 2011 Conference is a two-day event attracting inspirational speakers from the gaming, entertainment and business industries. The conference focusses on networking oppourtunities for games developers and publishers from across the international community.

The event is backed by the GameHorizon Advisory Board and a conference advisory committee staffed by some of the industry's leading figures.

Confirmed speakers for the 2011 event include such industry luminaries as Ian Livingstone, Louis Castle, Rick Gibson, Heiko Hubertz, John Nash and Jesse Schell.

MAY 2011

NORDIC GAME 2011
May 10th to 13th
Malmo, Sweden
www.nordicgame.com

THE DEVELOP QUIZ
May 11th
Sway Bar, London, UK
www.develop-online.net

CANADIAN GAMES CONFERENCE
May 19th to 20th
Vancouver, Canada
canadiangamesconference.com

MONETISING MOBILE
May 25th
BAFTA, London, UK
www.mobile-ent.biz

MCM LONDON EXPO
May 27th
Excel, London, UK
www.londonexpo.com

JUNE 2011

E3 EXPO 2011
June 7th to 9th
Los Angeles, US
www.e3expo.com

JULY 2011

MCV GAMESFIVES
July 1st
London, UK
www.gamesfives360.co.uk

DEVELOP CONFERENCE
July 19th to 21st
Brighton, UK
www.develop-conference.com

DEVELOP AWARDS
July 20th
Brighton, UK
www.develop-online.net

AUGUST 2011

EDINBURGH INTERACTIVE ENTERTAINMENT FESTIVAL
August 11th to 12th
Edinburgh, Scotland
www.edinburghfestival.co.uk

GDC EUROPE
August 16th to 18th
Cologne, Germany
www.gdceurope.com

GAMESCOM 2011
August 17th to 21st
Cologne, Germany
www.gamescom-cologne.com

SEPTEMBER 2011

EUROGAMER EXPO 2011
September 22nd to 25th
Earl's Court, London, UK
expo.eurogamer.net

OCTOBER 2011

GAMES MEDIA AWARDS 2011
October 13th
Bloomsbury Ballroom, London
www.intentmedia.co.uk

GAMECITY
October 25th to 29th
Nottingham, UK
www.gamecity.org

GAMEHORIZON

C O N F E R E N C E

GAMEHORIZON CONFERENCE IS A 2 DAY EVENT, HELD AT THE SAGE IN GATESHEAD ON 28TH AND 29TH JUNE.

IT IS EUROPES ONLY EXECUTIVE LEVEL CONFERENCE THAT FEATURES CREATIVE, INNOVATIVE AND INSPIRATIONAL SPEAKERS FROM THE WORLD OF GAMING, ENTERTAINMENT AND BUSINESS.

IF YOU ARE AN ENTREPRENEUR, CONSULTANT, JOURNALIST, PRODUCER OR COMMISSIONER WORKING IN THE GAMES SECTOR THIS IS A MUST ATTEND EVENT!

SPEAKERS INCLUDE

IAN LIVINGSTONE
EIDOS

JESSE SCHELL
CARNEGIE MELLON UNIVERSITY

HEIKO HUBERTZ
BIGPOINT

TERO VIRTALA
REDLYNX

TO REGISTER GO TO
WWW.GAMEHORIZONCONFERENCE.COM/BOOK-NOW
TICKETS ARE PRICED AT £335 +VAT FOR 2 DAY PASS

BETA

DEVELOPMENT FEATURES, INTERVIEWS, ESSAYS & MORE

"Change represents both oppourtunity and risk, creatively and financially."
Laura Fryer, Warner Bros, p48

Lionhead's two-day dev experiment
p31

The in-depth Develop Audio Special
p34

Game design documents: best practice
p47

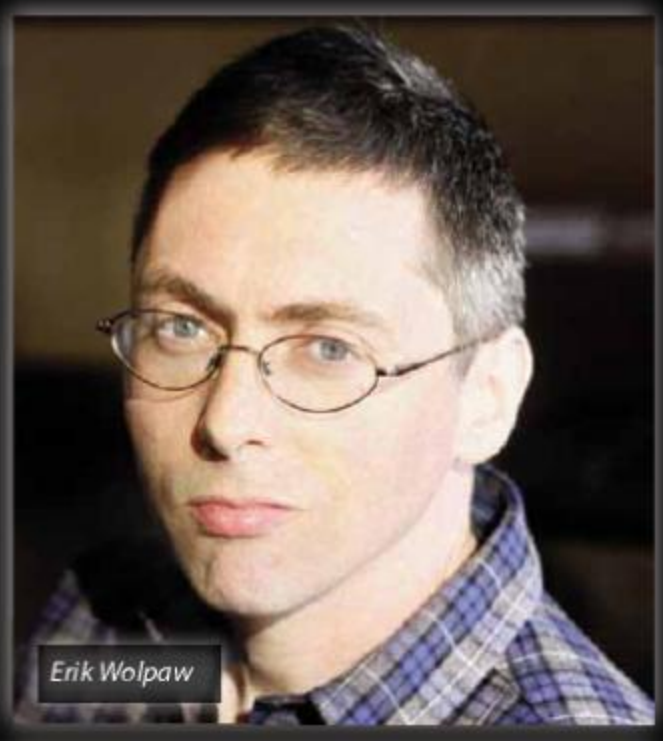
At home with Gabe

Critical darling and populist hero Valve opens its doors to Develop, p22

POWER TO THE PEOPLE

Robin Walker

Gabe Newell


Erik Wolpaw

Its next project may be a salivating industry secret, but behind the code an ever deeper mystery lies. **Rob Crossley** uncovers the strange and spectacular way Valve creates blockbusters...

Jason Holtman

Josh Weier

Ted Backman and Jason Mitchell

Erik Johnson

He is mistaken for a man who went back on his word. Gabe Newell had, once upon a time, become the self-appointed pariah of the PlayStation 3 development community. Times have changed, but his mood may have not.

Hardly were his criticisms anything like the vacant rhetoric of Microsoft and Nintendo salesmen. Newell's objections to coding on PS3 were home truths from a developer's heart – one who's worked in technology for 28 years. His analysis reverberated like a meteor crash. It was technical and trenchant, brutal and accurate, hated and loved.

That was before the 2010 E3 Sony Press Conference – the annual pantomime of games industry office politics. Here the world watched as Newell stood centre stage to reveal an extraordinary volte-face; Valve was now internally supporting PlayStation. Newell said he'd been outspoken. The crowd laughed. He never said he was wrong.

The true story behind Valve's PS3 turnaround is hard to believe. Yet it offers a rare snapshot of how the company's most startling turnarounds aren't always made at the behest of the management.

Newell is able to verbally dismantle Sony's console faster than George Hotz can hack it, but if the mood at Valve turns against his view, he is prepared to bite the bullet for his team in the most painfully public manner.

AMOUNG EQUALS

"Put it this way," says Erik Johnson, a longstanding employee at the company, "we didn't have a PS3 version of our Source Engine because, quite simply, there weren't calls from within the company from people who were interested in doing a PS3 game."

Johnson's career at Valve began with bug-testing the first *Half-Life* in the late nineties. In the years that followed he rose within the company to become a respected senior project manager, but he takes no pleasure when *Develop* describes him as 'one of the management'.

Nobody is a manager at Valve, he says pointedly. When told he must nevertheless carry seniority, his expression hardens.

"Having someone tell someone else what to do would just be completely destructive to Valve. We're completely allergic to that," Johnson says.

The senior project manager's account is flattering, but thorny. In an industry where romantic visions of developer freedom are largely illusory, it is difficult to hear him insist that no command had been issued from above. But he goes further; he says that Valve, one of the most successful technology companies in America, doesn't even have a formal management structure.

Newell's appearance at E3 suggested otherwise. It felt like a deal in the desert. Sony would get its blockbuster game, Valve in return would cross the threshold and bring its moneymaking digital portal, Steam, to the living room.

But Johnson is adamant, and he is absolutely sticking to his story: "No one here decided to do anything about PS3 development, and the way we vote to do something about it is to simply start working on it.

Valve's Washington studio, resplendent with a working gun turret

"That's why we're working on the PS3 now, because we had about four engineers – some of which have worked here for a few years – who were annoyed that we hadn't developed for that platform, and they were willing to cross over."

Develop spent a full day at Valve to meet, dine with and interview over a dozen of its talented and inspiring staff. There was a lingering sense of disbelief throughout the occasion. Each conversation brought light to an extraordinary development culture that is dangerously approaching socialism – one which, until now, has been kept in the dark.

> ***"Right now it feels to us that the games industry is changing faster than it ever has since we started Valve in 1996."***
>
> Gabe Newell, Valve

"IT'S TIME TO CHOOSE"

Newell settles at one end of a stretched meeting room table without a single cup of coffee in sight. To his left, an emergency can of Coke. To his right, a dictaphone.

"When I left Microsoft, I could have retired," he says, occasionally peering at the door as if waiting for someone.

"If I wanted, I could've have sailed around the world on an extended vacation. But I decided I wanted to work. I wanted to work with other really smart, motivated, socially-orientated people to create product that would affect millions of other people. To me, that was the most fun I could have."

Newell describes himself as a "lottery winner" for joining Microsoft at a time when 'a computer in every home' was just a dream. He left the multi-billion dollar firm in 1996 to co-found Valve Software with fellow Microsoft manager Mike Harrington.

Harrington quit the company just four years later to pursue something which, demonstrably, still perplexes Newell. Harrington left to embark on a sailboat tour around the world. Such a decision, even today, seems alien to a caffeine-blooded workaholic like Newell.

"I would've sailed half way to Hawaii, cut my wrists and thrown myself to the sharks," he says, punctuating his point with the click, snap and fizz of an opened Coke can.

Forbes recently branded Newell a likely billionaire. His career began – in what has almost become rite of passage for tech pioneers – with an excuse to quit college. In the 28 years since, he has shown only the rarest flashes of that famous American entrepreneurial instinct. The Harvard-educated man's passions are, when one reflects on them, startlingly non-commercial.

"Working with everyone here at Valve is what I would do if given the choice to do anything," he says.

To believe in his vision is to accept that Valve behaves more like a professional mod community than it does a business. The company's multi-billion-dollar valuations detract from its central purpose of fostering a four-walled society of dazzlingly gifted and creative individuals. The kind of aspiring people who everyone wants to work with, who solve problems and share ideas.

For this to work to its fullest potential, Newell says, any strict chain of command must be abolished, and people cannot be forced into the confines of a single duty.

"If you're trying to invent things, or do novel things, a really strong hierarchical organisation structure can get in the way of that," he says. ▶

▶ "Right now it feels to us that the games industry is changing faster than it ever has since we started Valve in 1996. As much as we've tried to be flexible and adaptable in the past, today it's more important than ever.

"If you look at how quickly the video game environment is changing, what works really well in one generation becomes pretty irrelevant the next. You go from sprites to polygons. From 256-colour 64-by-64 bitmaps to shaded polygonal models.

"Game studios have to constantly keep reinventing themselves; processes have to change over and over. In this industry, things we were successful at in the past don't matter a whole lot in predicting how well we are going to do in the future."

There are holes to be pricked in his theory. For years, other studios with even the most regimented structures have, by hook or by crook, adapted to industry shifts. Ubisoft Montreal, with a workforce above one thousand, can today finish a modern triple-A project in around fifteen months.

"The only problem with that is that they'll be able to knock out the same thing over and over again, and not something that adapts to the changes in the industry," Newell says.

"What you end up finding is those thousand people are the enemy of your next project. They may be able to bang out your current one, but they will get in the way of the next."

Leaning back in his chair, he reflects for a brief moment.

"I haven't seen any evidence that the rate of change in the industry is decreasing. I think it's increasing."

If you find yourself in a position where you disagree with Newell, or perhaps wish to cross-examine him, the best advice is to thrash out a sentence like a sledgehammer to a door. He has a towering, composed eloquence of which there is little point trying to dance with.

> ***"I think, for other developers, there's a lot of speculation about how Valve actually works. We all know how confusing other people must find it."***
>
> Robin Walker, Valve

So, wot then, *Develop* asks, happens when Valve has a deadline to hit? How does a studio with no hierarchy meet a product launch date if no one's there to whip developers into shape?

He responds instantly: "People pick up their shovels and start digging. Since everybody gets used to this idea and no one tells them what to do, everybody gets used to this idea of picking what's best for them to work on. And it's amazing how much more productive people can be when they're setting their own agenda."

Each time the Valve studio model is challenged, Newell springs back with an answer. It speaks volumes about the gulf of understanding between those on the inside and those looking from afar. What seems implausible, extraordinary and remarkable is, for Newell and his 260-odd colleagues, as instinctive as muscle memory.

Newell appears to have an answer for everything. Yet there is one question, issued in the guise of a compliment, which catches him in a sudden moment of silence.

LET THEM EAT CAKE

Portal 2 will crown charts, make millions, be talked to death on forums and become eulogised by the game critic noblesse. By the time you read this, its Metacritic number will have settled (*Develop* predicts a 91), and another sequel will be prayed for and speculated on.

Even for a Valve product, both commercial and critical success has never been so estimable. Expectations for its predecessor scarcely existed – the first *Portal* had been billed in the shadow of *The Orange Box* package it was bundled in.

"A lot of people here at Valve didn't really take a proper look at the first *Portal* until it shipped," says Erik Wolpaw, a man with the kind of sharp meme-cultivating wit that's become central to the Portal series.

"As we were finishing *The Orange Box*, a lot of people at the company were heads-down on all the projects that entailed. So for many at Valve, their first-time relationship with *Portal* was the same as the fans'.

"I think that's why eventually we got a lot of interest internally about working together on the sequel."

Wolpaw, 44, broke onto the scene in the late nineties with a games blog described as "unbelievably offensive" and "disproportionately influential" with a "wilful, ironic troglodytism aped by internet idiots for years". Valve hired him as a writer in 2005.

"People who worked on the original *Portal*, like me, were just really energised by the response to the game," he says.

"I imagine you get this now that, at Valve, projects don't just happen because of some top-down decree, but because there are enough people interested in doing a project and those people, quite simply, start talking to each other."

Wolpaw had a central role in the development of *Portal 2*, but he hadn't been there at its genesis. Project director Josh Weier gives rare insight into how games are born at Valve.

"It really is an organic process. I mean, coming out of *The Orange Box*, a few of us still had some ideas about where the game could go," he says.

"And having finished that massive project with *Half-Life 2 Episode 2*, *Team Fortress 2* and *Portal* bundled together, it was an ideal time to recharge our batteries and riff a little. I remember there was about four of us, and we were all playing with different gameplay mechanics. So we roped Erik into helping out with it too."

Weier is a mild-mannered ex-Raven Software developer who refuses to share the secret of looking half his age. He confesses to a touch of inexperience, or perhaps nerves, when tasked with leading a project that had so quickly escalated in importance.

"I do remember meeting up with Gabe at one point for a bit of help and advice, because, you know, this was one of the first big projects that I had to help manage. And he said to me, 'I could take hold of the handlebars and help you steer but I would probably knock you off your bike much more'.

"So his approach, and the company's at large, is to help when help is needed but to allow the the project drive itself."

> ***"It's hard for me to look back at how disgruntled I was before Half-Life 2 shipped. I've become obsessed with the wellbeing of my team."***
>
> Gabe Newell, Valve

Such is the nature of a decentralised studio culture, not everyone internally would have known that Weier and Wolpaw were working on *Portal*'s sequel. Valve is not a company where projects are announced through delegation.

"We put together a few concepts that were shown to a few people, just one or two internally, and we got feedback. That's been the process throughout; make something, get people to evaluate it, edit and carry on.

"With only a few of us working on this, we had built some levels, made some mechanics, created some art assets and had a rough narrative in place. What we do at that stage is called an 'Overwatch.'"

An Overwatch, named after the half-human gas-masked military force in the *Half-Life* universe, marks a cornerstone moment in every Valve project. Senior developers, lead designers and marketing ▶

Portal, once the side-salad of The Orange Box, has become a remarkably lucrative Valve IP

Finding emo

RAISING THE bar in emotional intensity is an evolving challenge for Valve's animators, 3D artists and writers.

"We got a lot of feedback from our customers about the ending in *Half-Life 2: Episode 2*," says Valve's Ted Backman, a living legend in the disciplines of illustration and animation.

"People told us it was one of the emotional moments they've had in our games so far. Judging by that, I think in terms of stirring emotion, we have come a step forward since *Half-Life 2*.

"But actually I think we stepped forwards with *Portal* as well. People really started to have emotional reactions to inanimate objects and disembodied voices, and I can't really think of other games with so much emotional involvement in things you don't see.

"It's all down to the writing. We had a few new people that came onto the *Portal* project that could enhance the writing that was going into it."

In reference to the *Half-Life* series, Valve's 3D graphics maestro Jason Mitchell advises on a simple trick to bring life to characters:

"In terms of technologies, I think the eye-shading in particular is essential to our purpose. Algorithmically the process is very simple, but it's something that most other studios haven't paid enough attention to."

Artwork of Valve's most seminal games hang in corridors like trophies

▶ staff are shown a project for the first time. This is where all game ideas at Valve are tested to the limits of their potential and put to the mercy of a committee of experts.

"We had about twelve people look at it," Weier says, "but it's still the same process. We get feedback on what they loved and hated, but we also are given ideas as well. It's a key philosophy at Valve that decisions on a project ultimately have to be made from people working on the game.

"An Overwatch team doesn't come back and list all the things we need to change, they simply say 'this is what we think' and we do what we want with that feedback. Of course usually the feedback you're getting makes a lot of sense and is coming from people you respect. However, and honestly, we can say we don't agree with certain points and the company will understand that."

Wolpaw steps in: "In the case of *Portal 2*'s first Overwatch, some designers who loved what we were doing jumped on the project."

When compared to the traditional factory-line model of triple-A games studios, the grass-roots style at Valve is tricky to fathom, even when explained in illuminating detail. It is either a unique utopian model where developers are free to mix and experiment, or the most elaborate lie *Develop* has ever printed. For those who believe, *Portal 2*'s imagination and craft will testify to this distinctive game development structure.

CRUNCH TIME

So what question had stopped Newell in his tracks? During his first half hour with *Develop* he made astute arguments whilst joking about recurrent game delays, and everyone dying in the middle of our interview, and the lack of reason to believe a new *Half-Life* project even exists.

But when told he seems happier than ever, he falls silent for a few enduring seconds.

"It's hard for me to look back at how disgruntled I was before *Half-Life 2* shipped," he says.

> ***"After my first experience in the industry, I was done with it. I was ready to quit. But working Valve is nothing like what I went through before."***
>
> Erik Wolpaw, Valve

Someone finally arrives at the door to hand over a tall Starbucks. Newell tests its plastic lid with his hand, nursing the drink while it cools a little. The man who brought it in, Jay Stelly, was hailed as Valve's most senior engineer as he backed out the room.

"There are probably at least five publishers Jay could call and get a $30 million project in an hour if he wanted to," Newell says.

"The reason he's here isn't because he has no other option, he's here because he can work with the best people we have."

Newell clearly takes pride in the people who helped build his studio empire. You can tell even more so when he, for a fleeting moment, looks back on the bitterly protracted *Half-Life 2* project.

That five-year odyssey had awakened Newell of his own responsibility for the wellbeing of his staff. He says he's now "obsessed" with maintaining the work/life balance of his team.

"In fact that's why we're all going to Hawaii in a week."

After *Half-Life 2*, a significant change was made to the timelines which Valve put on projects. The company had introduced an episodic model – one which was promised would shorten development cycles and give staff more room to breathe.

Two episodes later, that model has been completely replaced, Newell says. Everything Valve designs and makes today is built under the credo of the connected age – as 'entertainment as a service'.

Games will no longer be cut into slices, he says, but instead will become their own platforms that Valve can continually evolve and update through Steam.

"We went through the episodes phase, and now we're going towards shorter and even shorter cycles.

"With episodes, I think we accelerated the model and shortened development cycles with it. If you look at *Team Fortress 2*, that's what we now think is the best model for what we've been doing. Our updates and release model keeps on getting shorter and shorter."

By the time you read this, *Team Fortress 2* will have passed its two hundredth update on PC. The game was released late in 2007.

"If you talk to some of the Korean developers, they actually make fun of us for taking so long to do updates," Newell adds.

"They say that, until we release updates every single day, we're missing a huge

Phone smarts

HAVING MADE enormous progress on home consoles after conquering the PC, what is Valve achieving in the mobile space?

In short; the studio doesn't have a solid plan.

On the games side, Valve's Erik Johnson explains: "If you look at the profile of Valve as a company that builds entertainment software, we've had no mobile strategy at all."

In regards to applying the Source Engine to smartphone operating systems, Gabe Newell elaborates: "On mobile we've done nothing. If people want to create a mobile game today, call Tim Sweeney [Epic Games]".

And Steam, the increasingly ubiquitous digital stronghold? Valve's Jason Holtman cools rumours: "Mobile is really interesting. But it's too early to say anything definitive."

Without a solid plan in place, Valve is looking out for feedback on the issue, explains marketing director Doug Lombardi.

"We do feel we're late on mobile across many of Valve's services," he says.

"It is something we're starting to look at now. There's a common set of features that people could see themselves using, and are starting to ask us for. The more we hear about those requests, the more we feel the need to act on them."

amount of value. I think there's a lot of validity to that perspective.

"*Left 4 Dead 2* is starting to approach the *TF2* cycle. *Portal 2*? We'll have to see how much our customers want us to push in that direction. In general, our approach to our customers is, every day, to ask what we can do for them."

Robin Walker was one of three pioneers of the original *Team Fortress* mod for *Quake*. In March 1998, Valve asked him to build a similar mod for *Half-Life*. He's been working at the company ever since.

"The whole idea about constantly updating our games originally came from a mod community ethos," he says with an Australian accent masked behind years of American dialect.

"The best mods in the early days, like *Counter-Strike*, *Team Fortress*, *Day of Defeat* and *Garry's Mod* – these were all things that were constantly updated.

"And when you realise these were the most popular mods and see that they update all the time, you think, yeah, maybe there's something remarkably valuable in building your product iteratively in front of your own customers."

With Steam, a digital platform that is arguably Valve's most significant contribution to the games industry, Walker and his team can engage with customers on a daily basis.

"In fact," he adds, "we have been able to modify a game before its release based on how people respond to marketing.

"When customers watch our trailers and say 'that feature looks awesome, I can't wait to use it to do X, Y and Z', sometimes we haven't thought about those ideas at all, so we'll update a game pre-release to add stuff in that people are excited about. That's the power of Steam."

THE VALVE MANIFESTO

As Marx might've said, developer freedom is the opium of the masses. Studio labour is often, when the mask is removed, punishing factory work. Talented individuals are systematically pushed behind desks and feed to-do lists.

There is little magic in the air during a six-month crunch period. The malaise of these conditions is, save for the occasional spouse's outburst, kept hidden from the public.

> ***"Some say that, until we release updates every day, we're missing a huge amount of value. There's a lot of validity to that perspective."***
>
> Gabe Newell, Valve

There isn't a conclusion to be drawn from Valve's distinctive approach to game development – only a dilemma.

To accept it works, to admire its glorious communal and socialist system, is in part an admission that the rigid studio structure should be reassessed.

"I think, especially for other developers, there's a lot of speculation about Valve actually works," Walker adds.

"We all know how confusing it must sound to them".

Newell reveals that it usually takes his newest recruits around half a year to fully adapt to life without the familiar structure of a line manager.

Johnson says it can be a genuinely stressful time at Valve during the first six months – to not be checked on work, to not be given any immediate direction.

For others, like Wolpaw, escaping the old system and joining Valve was a relief from the very start.

"After my first experience working in the industry, I honestly was done with it," he says.

"I quit the company I was working at. I was pretty much ready to quit the industry, in fact. It wasn't fun. It was interesting, but I had no real desire to do that again.

"I must admit, I thought working at Valve could be just as bad. But it was like night and day. Working here is nothing like what happened before."

Valve is, like the industry it stands atop, in a continuous state of flux. The only constant is its people. Their stories, entangled together, define the studio better than any product line ever will.

Valve is not *Half-Life*, nor *Portal*, nor *Steam*.

Valve is Ted Backman. Valve is an experimental psychologist, and Ken Birdwell, Marc Laidlaw, and a community manager, Michael Abrash and Chet Faliszek. Valve is a DigiPen student who shot to fame and quit. A *System Shock* creator who finally joined.

Valve is Dhabih Eng. It is Jay Stelly, Jeff Ballinger, the team who invented the gravity gun, Aaron Barber, Michael Booth and Doug Lombardi.

It is Jeep Barnett, John Guthrie, the original *Team Fortress* modders, Gabe Newell, Ariel Diaz, Doug Wood and four PS3 engineers who changed the studio's path.

Their collective past is a story of studio that shot to the digital heavens like a flowering Roman candle.

The future is their call.

www.valvesoftware.com

Over fifty awards and trophies test the mettle of a creaking shelf stack

IMAGINATION STUDIOS™

NEW WEBSITE

WWW.IMAGINATIONSTUDIOS.COM

Clients

REMEDY · UBISOFT · DICE · LEXUS · EA · codemasters · ATARI · nitro games · massive · eidos · CRYSTAL DYNAMICS · Io-Interactive · CRYTEK · Microsoft game studios · CLIMAX · ROCKETXL · SQUARE ENIX · vivendi · CAPCOM

Face Animation
Animation (Mocap and Keyframe)
Ingame and Rendered Animation
Modeling and Texturing

Performance Capture
Storyboards and Animatics
Rigging and Skinning
Special Effects

Full Audio Services
Compositing and Rendering
Concept Art and Illustration
Video Editing

+46 (0)18-106930

www.imaginationstudios.com

info@imaginationstudios.com

IMAGINATION STUDIOS™

I would like to say thanks to you and the rest of the Imagination team for the good work that you have done in helping us produce these clips in a very tight timeframe. We appreciate the effort that you have put in and are very pleased with the quality of the work. It was a pleasure working with a professional outfit who know what they're doing and get the job done well. Hopefully with have the opportunity to work together again soon!

- Dee Doherty, Outsource Manager, Climax

Thank you for the great work you guys did for us on Bulletstorm.

- Erik Gloersen, Studio Director, People Can Fly, Epic

Working with Imagination Studios for Battlefield-Bad Company has been a very smooth experience. Everything from bookings, actors and receiving clean high quality data has been hassle-free from the start. Quick turnarounds and creative solutions to any problems occurring made our creative decisions so much easier. If Mocap is this smooth, EA Dice will definitely keep working with Imagination Studios again in the future.

- Patrick Bach, Producer, DICE

Thank you, to the team at Imagination Studios for a really solid data delivery on our project. From pre to post it has been a good experience and Imagination Studios has been a good partner for us. We will not hesitate to use the team in the church again in the future. Thank you very much.

- Martin Madsen, Lead Animator, IO Interactive A/S

It is with great pleasure that we can recommend Imagination Studios. Remedy has been extremely pleased with their co-operation and devotion in bringing the characters of Alan Wake to life. Aside from this, the team at Imagination Studios have been a real pleasure to work with: flexible and dedicated to solving problems. We view Imagination Studios as a reliable company with terrific production quality.

- Lasse Seppänen, Executive Producer, Remedy Entertainment

Working with Imagination Studios turned out to be a really good solution for us. We have high demands for quality and keeping deliveries on time. Imagination Studios made a good job both during the shoot and during the post work. They made our work much easier. I hope we can work together again in the future.
To sum it up: Job well done! Thanks guys!

- Henrik Håkansson, Lead Animation, Starbreeze

When working with the In-Game Cut Scenes for Woreld In Conflict I had a tighter schedule then ever before, more complicated scenes, greater number of actors, more lines of dialogue, tons of timing issues, needed a casting set up without warning, required tons of props to be built and ready before we arrive on set, and demanded professional execution with a reliable delivery flow of the best possible data, in a key-ready state. Imagination Studios delivered down to the last late night snack. We have worked with Imagination Studios several times during the last years and will gladly do it again.

- Tobias Strömvall, Cinematic Director, Massive Entertainment

Working with Imagination Studios has turned out to be a good choice for us. From the moment we first started discussing the possible co-operation to the delivery of the latest animation data they have continued to impress us with their level of professionalism. Our goal was to find a reliable partner that would take care of the motion capture process on our yet unannounced title so that we could focus on making a great game instead of spending time solving the possible trouble in the animation pipeline. The people at Imagination Studios have been really good in meeting our demands so far and we're looking forward into continuing the ongoing project with them.

- Jussi Tähtinen, CEO, Nitro Games

I am very pleased to say that we're extremely happy with what Imagination Studios provided us. You are truly a team of professionals and working with you is a pure pleasure. We are very pleased with the work and the effort.

- Maciej Kowalski, Game Designer, Flying Fish Works

Professional, flexible and fun is how I would like to characterize Imagination Studios. On our shoot we broke the unofficial record for number of takes recorded by first-timers on set. We are looking forward to a continuing cooperation with Imagination and further record-breaking!

- Michael Höglund, Product Manager, Power Challange, Power Soccer

After previously having worked with Imagination Studios for a major AAA title and now preparing to do yet another motion capture session at their studio, we at Grin AB can only highly recommend Imagination Studios for their quality of work, their studio facilities, and the people involved in the process of making a clean and smooth Motion Capture shoot.

- Lars Bonde, Lead Animator, Grin

Imagination Studios has been a great partner to work with. The team a Imagination Studios is easy to communicate with and has been very helpful from day one. I would definitely want to work with this studio on future projects. Thanks Guys!

- Dick Adolfsson, Lead Animator, Coldwood Interactive

+46 (0)18-106930 www.imaginationstudios.com info@imaginationstudios.com

SPECIAL 20% DISCOUNT OFFER FROM CRC PRESS

ORDER ONLINE AT
WWW.CRCPRESS.COM
USE DISCOUNT CODE 193CM
AT CHECKOUT TO APPLY
EXP DATE: DECEMBER 31, 2011

CRC Press
Taylor & Francis Group
A K Peters

SEE EXCERPT ON PAGE 62

250 Indie Games You Must Play

Mike Rose

Price: $29.95 / £17.99
Cat. #: K13514
ISBN: 9781439875742
Publication Date: April 21, 2011
Binding: Paperback

With a surge in popularity recently and an increase in great downloadable games, there has never been a better time to learn about independent "indie" games. 250 Indie Games You Must Play is a guide to the exciting and expanding world of indie gaming. Whether you are a veteran of the indie game scene or have never played an indie game before, this book helps you experience the best in indie gaming and further your understanding of why indie games are so important in the entertainment industry.

The wide range of games highlighted in the text encompasses concepts and ideas that will change your perspective of what video games can be. The book covers puzzlers, platformers, beat 'em ups, shoot 'em ups, role-playing, and strategy.

Apart from being fun, indie games can be experimental, emotional, nostalgic, and occasionally just plain bizarre. Some make you sit back in awe, while others have you thinking, "Why have I never played a game like this before?" Better still, the majority of these games are completely free to play and even the commercial releases are incredibly cheap. Once you start playing indie games, you may not be able to look at your big-budget blockbusters the same way ever again.

The Golden Age of Video Games: The Birth of a Multibillion Dollar Industry

Roberto Dillon,
Digipen Institute, Singapore

Price: $39.95 / £25.99
Cat. #: K13396
ISBN: 9781439873236
Publication Date: March 23, 2011
Binding: Paperback

This book focuses on the history of video games, consoles, and home computers from the very beginning until the mid-nineties, which started a new era in digital entertainment. The text features the most innovative games and introduces the pioneers who developed them. It offers brief analyses of the most relevant games from each time period. An epilogue covers the events and systems that followed this golden age while the appendices include a history of handheld games and an overview of the retro-gaming scene.

Game Engine Gems 2

Eric Lengyel,
Terathon Software

Price: $69.95 / £44.99
Cat. #: K13208
ISBN: 9781568814377
Publication Date: February 14, 2011
Binding: Hardback

This book, the second volume in the popular Game Engine Gems series, contains short articles that focus on a particular technique, describe a clever trick, or offer practical advice within the subject of game engine development. The 31 chapters cover three broad categories–graphics and rendering, game engine design, and systems programming. Professional game developers, students of game development and computer science, and anyone interested in learning how the pros tackle specific problems that arise during game engine development will find useful gems in this collection.

GPU Pro 2

Wolfgang Engel,
Confetti Special Effects

Price: $69.95 / £49.99
Cat. #: K00418
ISBN: 9781568817187
Publication Date: February 14, 2011
Binding: Hardback

This book focuses on advanced rendering techniques that run on the DirectX and/or OpenGL run-time with any shader language available. It includes articles on the latest and greatest techniques in real-time rendering, including MLAA, adaptive volumetric shadow maps, light propagation volumes, wrinkle animations, and much more. The book emphasizes techniques for handheld programming to reflect the increased importance of graphics on mobile devices. It covers geometry manipulation, effects in image space, shadows, 3D engine design, GPGPU, and graphics-related tools.

Game Design: From Blue Sky to Green Light

Deborah Todd

Price: $49.00 / £31.99
Cat. #: K00629
ISBN: 9781568813189
Publication Date: February 23, 2007
Binding: Paperback

This book takes a real-world, in-depth journey through the game-design process, from the initial blue sky sessions to pitching for a green light. The author discusses the decision and brainstorming phase, character development and story wrap, creation of content and context outlines, flowcharting game play, and creating design documents. Special features include examples of both classic and contemporary games, and interviews with many of the game industry's brightest professionals who share their insights on key elements in game design, and their analysis on what makes a game a blockbuster hit. This book is a perfect guide for the novice, student, and game enthusiast interested in learning the nuts and bolts of the computer-game industry.

Creating Games: Mechanics, Content, and Technology

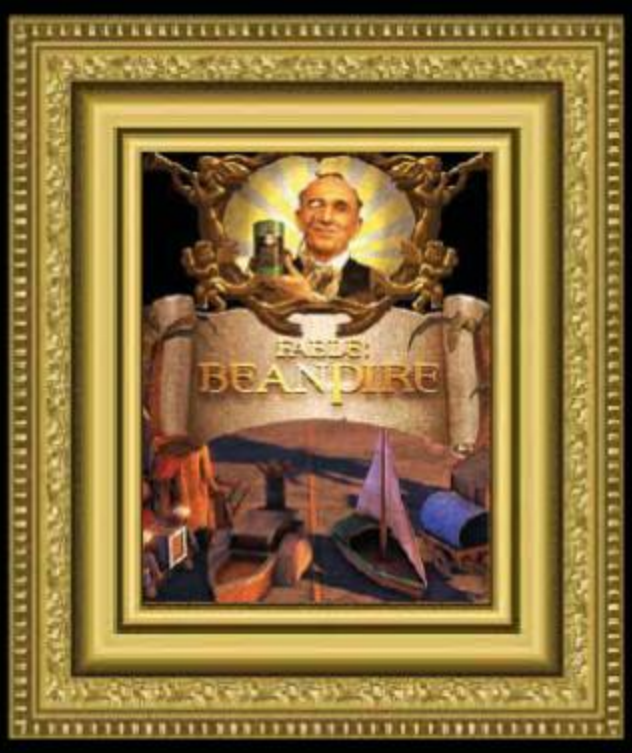
Morgan McGuire,
Odest Chadwicke Jenkins

Price: $69.00 / £43.99
Cat. #: K00377
ISBN: 9781568813059
Publication Date: December 23, 2008

Creating Games offers a comprehensive overview of the technology, content, and mechanics of game design. It emphasizes the broad view of a games team and teaches you enough about your teammates' areas so that you can work effectively with them. The authors have included many worksheets and exercises to help get your small indie team off the ground.

Not Lionhead's next project

A Kinect based flying-chicken-man game? A blob that doesn't die? Populous in HTML5? When you ask a studio like Lionhead to make whatever it wants, **Rob Crossley** discovered the results can be dazzlingly creative…



Last month, a peculiar request was sent to all Lionhead staff by the senior management. Everyone was asked to take two days off the group's next blockbuster projects and, instead, come into work and design something completely new from scratch.

It didn't have to be a game, either. An idea in itself would be good enough. It could be a character design that's been itching the mind of an animator, or a new method for displaying lighting effects, or an old Bullfrog game put in a new light.

This was Lionhead Creative Day – a 'design, show and tell' project that culminated in Lionhead booking out a cinema theatre for its staff to show off what they had got up to. The results were astonishing. In two working days (as well as a few voluntary late nights) a monstrous level of creativity had awakened within the Guildford-based studio.

Some people had designed entirely new game concepts for *Fable*, while others decided to test Kinect in ingenious and innovative ways. Others, like the two games highlighted over the following pages, are too impressive to remain mere concepts.

"Big modern games do tend towards becoming a bit of a production-line," says Neil Wallace, a programmer nearing his tenth year at the studio.

"These projects are so big they have to be well-orchestrated, and I think you lose a bit of creativity and innovation in that sense."

Whether these small and splendid ideas will ever become full development projects is another issue entirely. But the staff *Develop* had spoken to made it clear that Lionhead Creative Day isn't about pitching a multi-million pound game design, it's about blowing off steam, throwing caution to the wind and awakening artistic passions.

Teams show off their ideas to the entire Lionhead studio at a Guildford cinema (right)

SHUFFLE

Team: Tom Lansdale, Virgil Tanasa, Kevin Fairbairn, Annes Stevens, Charles Griffiths

Idea: Shuffle follows a classic 2D Mario template that has been completely revitalised with inventive use of Kinect. A standard controller is used to jump and run through the levels, yet Shuffle's sketch-drawn hero can also respond to player arm movements to reach for items and attack enemies.

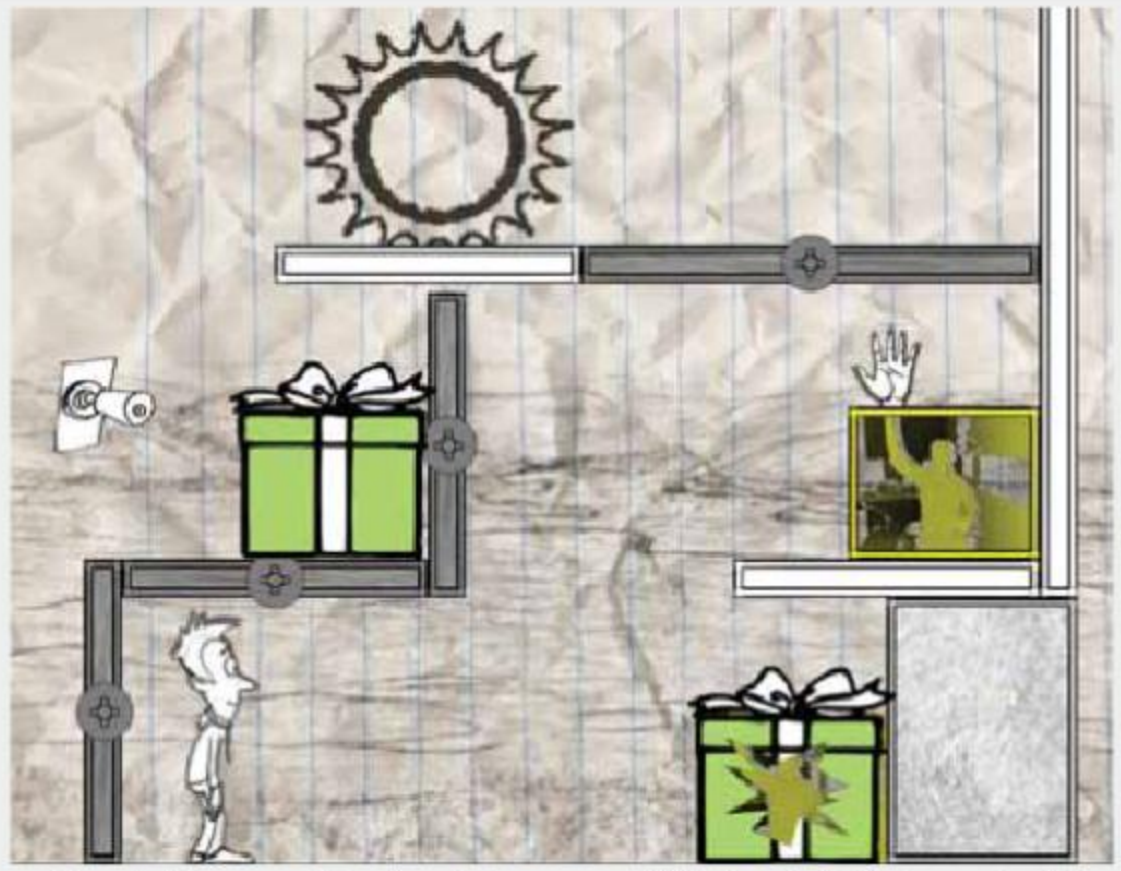
Yet the game takes a dazzling post-modern twist when Kinect's own camera view is displayed in a small preview window. In an ingenious moment, Shuffle allows that preview box to become an in-game item. With the player pictured inside the window, arms can be extended outward to hold onto objects, punch enemies, and drag the preview image across the screen.

The potential of this is explored when both Shuffle's in-game hero and the preview box are used in collaboration to solve puzzles and defeat enemies.

Interview: Charles Griffiths / Lionhead designer

What was the mood in the studio when Creative Day was announced?

The moment Peter mentioned that we were going to be doing Creative Day, I thought that it was a really brilliant idea. We got our team together very quickly and decided to actually start working on our game idea before the official two days that were allotted to it. Not by too much; just a few weekends.



The only thing me and Tom [Lansdale, Lionhead programmer] thought about was, okay, our game isn't going to be made into something real later on, so let's not have any silly hopes for it. We just thought that we were going to make something really cool that we could show to everyone at Lionhead to really entertain them.

Even, secretly deep down inside, you had no hope that Shuffle could one day become a full project?

Well if other people say that, then that's fantastic. To me, it's always been about entertaining people.

How much time did this project take out of your schedule.

We actually spent a couple of weekends in the office to get a lot of the work done outside of the two-day period. So early on we began storyboarding and talking a lot about how the game would actually work, while at the same time sorting out the base technology.

During the actual Creative Days it was great fun, and great to see so many people creating interesting things. Some people had great ideas that were not even related to games.

I think the whole idea is a great outlet for us, and everyone had so much fun doing it too.

Do you think this exercise is something more studios should do?

I think, if you come at it with the right expectations, it can be a lot of fun. I can see why some places don't do it, because you have developers that are putting their heart and soul into this, they're going to get there hopes up, they're going to make something really cool, and they're going to be crushed when a publisher doesn't come forward and offer a hundred million pounds to sign the game.

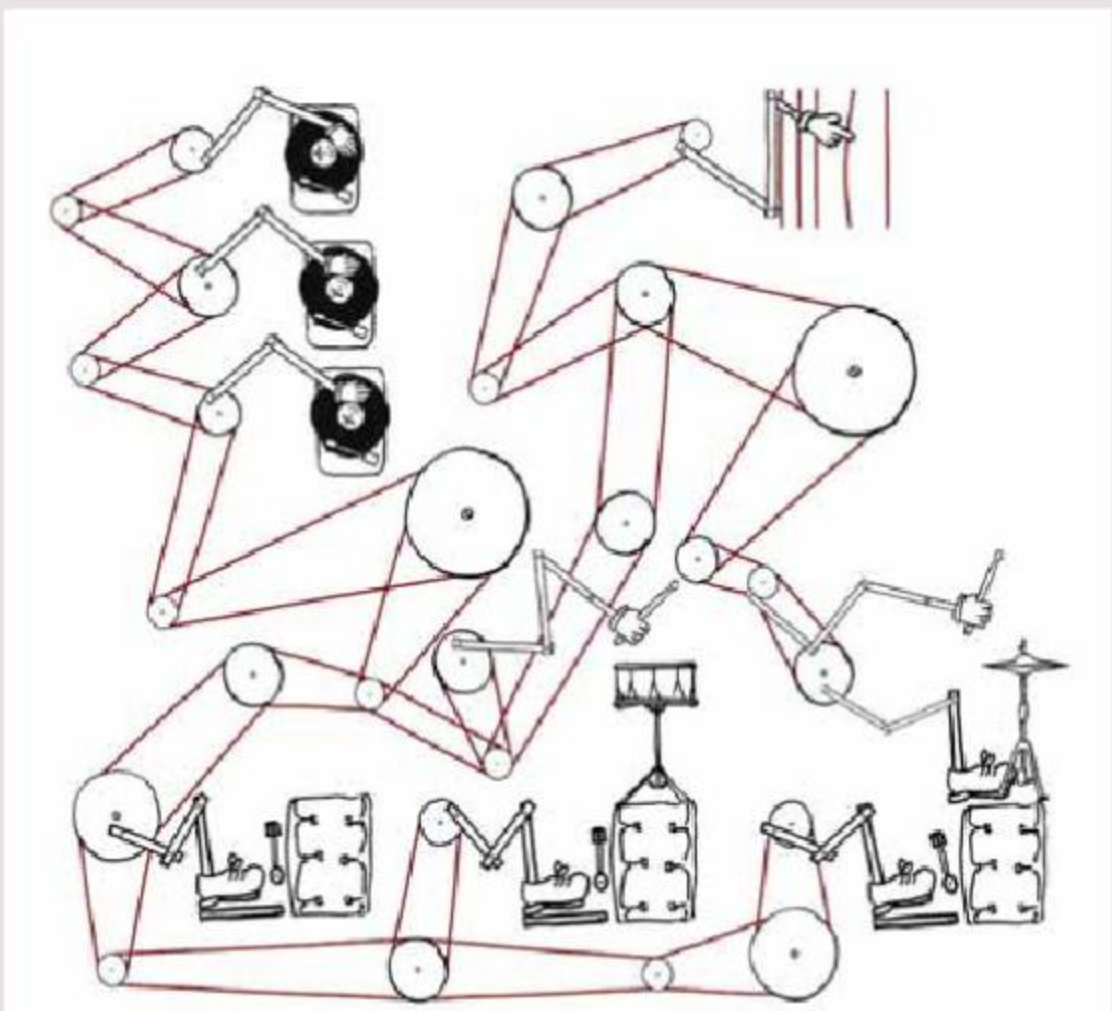
We're not holding out any hopes. That wasn't the point. We just wanted to meet up as an entire studio, show each other stuff and have a good day. If you come at it with that attitude, I think it's a great benefit for all studios.

Are there any practical benefits to the Creative Day, then?

We're finding out more about ourselves and the ideas we have. People get to know more about each other. Lionhead's a big company and it's good to hear more about people who you wouldn't always have the chance to meet. It's fun.

ONEMANBAND

Team: Neil Wallace (Solo)



Idea: Players drop spinning cogs onto a blank screen and, with the use of string, can create a network of conveyor belts. Wooden boots and detached hands can be stuck onto these conveyor belts to bang drums, swipe turntables, hit high hats and pluck harps.

The beauty is in the game's straightforward visualisation. In order to build a music track the only thing a player needs to know is how a wheel works.

The simplicity allows for depth too; a complex contraption of wheels, boots, drumsticks and turntables will look like a mad scientist's breakfast-maker, but can sound rich and pleasant.

Interview: Neil Wallace / Lionhead Programmer

It's always seemed so obvious that developers would have their own dream game ideas.
Yeah exactly, and in fact I remember in the older days at Lionhead we used to do a games competition every Friday lunchtime to come up with cool ideas for projects. It's amazing what you can get done in an hour. This is very much in the spirit of that, and some of the ideas we've seen today have been amazing.

Tell us a bit more about your own project, because it received one of the biggest rounds of applause at the end of your demo.
Well thank you. I think a lot of people were showing a lot of amazing ideas that could be commercially viable. I wanted to go the other way, really. I just wanted to show off something that I found really funny.

I only had the idea a week before the Creative Day thing started. A few random things clicked into place.

What were the practical benefits of this whole exercise?
I think the main thing is that it's good to step away from your day-to-day roles. You can't predict these interconnections, and you can't wait for an idea to come, you have to work on something and hope some bright ideas happen.

It's a terrible shame that most of these projects won't now turn into a produced game.
I guess it's difficult. Games these days are so big and complicated. I think Creative Day has been a fantastic opportunity for people to blow off a lot of steam. Hopefully these ideas will materialise in some way.

Have there been hints that these ideas can turn into a project?
Well, I certainly haven't gotten too hung up on that. I know that, back when this Creative Day announced, there were a lot of people who were wondering if we were essentially giving our ideas over to Microsoft. I don't really know, it doesn't really matter to me so much, I just want to create fun stuff.

But actually, Microsoft have a really good moonlighting policy. We can work outside of work, obviously as long as it doesn't impact on their own games.

I think there is a bit of a danger here because everyone's enjoyed this whole process and I think Lionhead may have created a bit of a monster.

You get the impression this whole process will energise the team.
Yes I think we'll come into work with a lot of food for thought. After these two days working on stuff there was a really great buzz in the office.

Sound advice

Leading figures from across the game audio disciplines offer insight and guidance on everything from working with orchestras to convolution reverb optimisation...

Game audio professionals have rarely had it easy. The consumer games press all too often ignores their efforts, and previously the fruits of their labours have rarely courted the fascination of the end user in the same way as the visual effects that beguile the public with apparent ease.

It's something that's changing, however, as quality voice work becomes the norm, and licensed music in video games emerges as a key point of interest for the world's biggest bands and performers.

Actors, musicians and orchestras are better understanding the creative and financial potential that working with games offers, and the industry is responding with a new appreciation of how to get the most from the talent it works with.

Meanwhile the technology and tools for sound effects and music production are changing, as is the hardware and the techniques for capturing performance. Subsequently aural realism has become a new focal point for developers of everything from triple-A to indie.

The integration of gameplay and sound is increasingly agile, and consumer expectations are rapidly rising, in part because of muscular home theatres becoming ordinary living room furniture.

Recognising that fact, over the following nine pages *Develop* brings you a number of specially commissioned pieces looking at every facet of the games audio disciplines, from best practice when working with orchestras, to a look at the rise of social audio, and an overview of key trends shaping the future of sound.

There are also tutorials on the likes of convolution reverb optimisation and composition workflow, and an analysis of best practice when working with voice talent.

Contents

35 – Audio Cloud Nine
A nine point guide to best managing your audio team and facility, by Nimrod Productions

36 – The Sound of Change
Periscope Studio takes a look at key challenges in games audio

38 – Optimising Convolution Reverb
Convolution reverb goes under the microscope, courtesy of Audiokinetic

39 – Need for Speak
Audio giant Dolby on why voice chat matters

40 – Voices of Reason
Side offers essential advice on microphone use when working with talent

41 – Social Sound Solutions
Liverpool Sound City's director on the companies reimagining audio distribution

42 – Organising Orchestras
Invaluable advice on orchestral composition workflow by The Creative Assembly

Audio Cloud Nine

Nimrod's production director knows a thing or two about running a successful sound department. Here **Rich Aitken** offers a list of top tips for those charged with audio team management...

Bringing together the audio assets for a modern video game is a daunting and complicated task.

There are artistic goals to reach, technical challenges to overcome, logistical issues to solve and the general management a team that will evolve over the project timeline.

Over the years, I've found that working in audio is much more about engineering a successful team than it is keeping a strict service provider/client relationship, and with that in mind, I've created nine tips to help you get better results.

1. EXPERIMENT

Games are an incredibly versatile medium and will stand brave decisions. Making broad artistic statements is within the remit of your audio. Don't be afraid to step outside of the norm and do something different. There are trends in game audio. This doesn't mean that because 'X' does one particular kind of score doesn't mean to say you have to. This is your art. Make statements and, especially at the project beginnings, don't be afraid to get it wrong in the pursuit of something right.

2. COMMUNICATION

Keeping clear communication paths between the creative and implementation teams is crucial. The early discussions outlining the goals of the game production and assets are the fun parts. Write everything down and do everything to make sure all of the decision makers are satisfied throughout.

3. SPREAD THE LOVE

If somebody is doing something great, tell them. You get a lot out of anybody through support and endorsing all those great things people do, but creative types respond and appreciate it even more. Sounds obvious doesn't it? But when we're down in the trenches trying to get stuff finished there seems to be a bias towards a 'this is not working' mentality.

4. YOU BUY CHEAP, YOU BUY TWICE.

Whether its buying speakers for a studio, implementing acoustic treatment, hiring composers, recording gunshots, mixing product or slaving on audio post production, keeping an eye on the pennies is sensible. However, making decisions based on the cheapest option is flawed. There is always someone prepared to undercut, but that's absolutely useless if the end result just isn't up to par.

> ***"Games are a very versatile medium and will stand brave decisions. Making broad artistic statements is within the remit of your audio."***
>
> Rick Aitken, Nimrod

5. STRIVE FOR EXCELLENCE

If 'who will notice?' was ever justifiable in making key decisions then we'd all be listening to Katy Perry – all of the time – in mono. Within your product boundaries, whether your are a composer, script writer, game producer or audio coder, strive for the absolute best.

6. SPECIALISE

Sometimes we have to wear many hats, especially in tight budget situations. Wherever possible it's a good idea to get key individuals to manage each facet of your production. For example, composing isn't sound mixing as much as script writing isn't acting. The best in any field are those who've spent a career lifetime sculpting their professional performance. It would be a broad polymath indeed that could cover every area in sound production to an expert standard.

7. INVEST IN YOURSELF, INVEST IN OTHERS

As a composer or audio producer you need the tools to do the job. Those tools can be instruments, software and appropriate hardware. If you're mixing audio you should have a set of tools and an environment capable of meeting the exacting requirements the role demands; a great room, great monitors and your own great abilities.

Equally, it's of great long-term benefit to use other people to fill in skill gaps. For example, when it comes to audio it's useful to use the services of a professional mastering engineer to finalise productions. Those independent ears are extremely useful and we owe it to the project to bring that level of care.

8. BE CAUTIOUS ON THE QUICK PATH

In music production I'm a firm believer that grabbing loops of Loops CDs and adding a funky MIDI piano is, frankly, a bit lame. Be bothered to go the extra mile in looking for new sounds or textures. Unless the particular music track is supposed to have a 'programmed drum' feel then get a drummer in. Book time in a studio and record real drums, guitars with amps, pianos, strings etcetera. Do whatever you can to make your recordings/productions/compositions stand out from the crowd.

9. THE MUSIC SUPERVISOR MAGIC

This special breed of audio folk really can make the difference to your production when it comes to selecting existing music and negotiating exciting collaborations with known artists. They are on the frontline on a daily basis dealing with labels, publishers and managers, and can secure great exclusives and culturally relevant soundtracks for your game.

www.nimrodproductions.com

Rich Aitken is the production director for Nimrod Productions, partner in Manasound and one of the founders of the NSO studio orchestra based at Abbey Road.

The Sound of Change

In-game audio is changing. Periscope Studios MD **Jan Weikmeister** looks at why, and highlights three challenges currently defining the way sound professionals work…

Jan Werkmeister, graduate engineer in media technology, starting in the early 90's with 68000 assembler coding. Coming from a musical background he co-founded Periscope Studio in 2007. As one of its two managing directors he is responsible for business development.

Talking about audio within the industry leads to the following conclusion: everybody agrees that audio is often neglected, having less time and budget than other fields of game development.

Fortunately, most people agreeing with this opinion are equally convinced of the sheer beauty and psycho-physiological power of music and sound. Undoubtedly the full potential of interactive audio is far from being exhausted.

In our opinion there are three challenges worth being highlighted when it comes to the future of game audio. These three aren't necessarily connected and each needs its own approach, but our daily work shows us that we will have to deal with all of them to make our way forward.

CHALLENGE 1: NEW PLAYGROUNDS

The industry has undergone a massive metamorphosis; from core to casual, from retail to digital and from console to mobile. Games are now being produced for an enormous audience that likes to play all manner of games everywhere and at any time. The way these games are being produced and the kind of companies which produce them have shaped an attitude towards audio that sets up quite a task.

Game producers in companies that grow fast due to casual games hype can have less experience, lower budgets and have to produce more products in a shorter amount of time. This often results in crappy music and crappy sound for those games. Apart from that, we're all heavily restricted in terms of memory and device capabilities.

It's not about huge budgets and complex orchestra sessions in this case. It's about ingenuity and fun, and it is these two aspects which have driven us all in the beginning of game development. In those days it was all about finding a way to push as much of your game idea and cool chip tune into that tiny amount of RAM and let it knock your socks off.

Nowadays an army of curious new mobile, social and browser users are discovering gaming as their new field of entertainment – so they don't deserve crappy sound, do they?

The challenge is to cope with this new situation, with these new kinds of games and an unbiased audience having vastly different expectations than the average gamer did in the past.

> ***"Curious new mobile, social and browser users are discovering gaming as their new field of entertainment. They don't deserve crappy sound, do they?"***
>
> Jan Weikmeister, Periscope

CHALLENGE 2: INTERACTIVE MUSIC

The second challenge is interactivity. When it comes to cinematic gaming experiences like open-world RPGs or interactive movies, interactive soundtracks will be the future of game audio. As we all know, the emotional power music which interacts seamlessly with the player and delivers a feeling of being completely immersed within the game has massive potential. Even though we've seen great aural accomplishments in games like *Bioshock*, *Dead Space* or *Crysis 2*, these wonderful soundtracks presumably cost the developer a lot of time, money and nerves.

On the other hand, we've seen technologies like iMUSE and the Directmusic Producer in Games like *Monkey Island* or *No One Lives Forever*, which delivered results so seamless and gorgeous that people most of the time didn't even realise how adaptive and innovative the soundtrack really was.

Unfortunately this midi-based approach couldn't keep up with the sound quality of professional studio recordings. Interactivity got sacrificed.

CHALLENGE 3: BOUNDLESS AUDIO

As the major productions are getting more and more complex and productions are likewise demanding more and more complex audio, the third challenge is what we like to call 'boundless audio'. To put it in a nutshell, one should have all the single elements of game audio in mind when creating a game or when you produce, compose or design audio for a game. Strangely enough we still have in-game situations where you don't hear what your next quest is because there's a explosion with huge orchestral music playing, and all of us know how disappointing a gaming experience can be when there's thrilling music and powerful sound effects but a bored actor is telling the story.

FUTURE SOUNDS

To sum it all up, at Periscope we believe that the future of game audio will force us as an audio studio to face three major challenges: being able to be creative and experimental with game audio for smaller games, having the knowhow and working intensively with game audio middleware to provide true audio interactivity, and not being able to just deliver music, sound design or voice-overs but deliver the entire package. We are continually working on all these aspects, improving our workflows in order to be competitive and ensuring we will meet the demands of our future projects and clients. The future is closer than you think.

www.periscopestudio.de

Liverpool Sound City
19-21 May 2011
Festival & Conference

CONFERENCE SPEAKERS INCLUDE

MICHAEL BREIDENBRUECKER (LAST.FM / RJDJ AND INCEPTION APPS)
SIMON RAYMONDE (BELLA UNION) IN CONVERSATION WITH ERIC PULIDO (MIDLAKE)
ALEX WHITE (NEXT BIG SOUND)
MATT BRIAN (THENEXT WEB)
WILL MILLS (SHAZAM)
CHRIS DOURIDAS (KCRW DJ)
DAVID COURTIER DUTTON (SLICE THE PIE/ SOUNDOUT)
KAREN PIPER (RADAR MAKER)
TIM HEINEKE (SHUFFLR.FM)
SEAN ADAMS (DROWNED IN SOUND)
DAVE HAYNES (SOUNDCLOUD)
MATTHEW HAWN (LAST.FM)
ROBERT THOMAS (RJDJ)
MARK ROCK (AUDIOBOO)
ADAM PERRY (BANDAPP)
MALCOLM DUNBAR (PLEDGE MUSIC)
MARTYN DAVIES (MUSIC HACK DAY)
STEPHEN KING (BELIEVE DIGITAL)
MARK MEHARRY (MUSIC GLUE)
MATTHEW OGLE (THE ECHO NEST)
DARREN HEMMINGS (PIAS)
ANDREA LEONELLI (DIGITAL MUSIC TRENDS/UNIVERSAL)
GREGORY VINCENT (SPONSUME)
STEPHEN O'REILLY (MOBILE ROADIE)
AND MANY MORE

#SOUNDCITY11

DOWNLOAD FOR FREE
ON IPHONE & ANDROID NOW
POWERED BY MOBILE ROADIE

REGISTER NOW FOR YOUR DELEGATE PASS AT
WWW.LIVERPOOLSOUNDCITY.CO.UK

SPECIAL OFFER FOR DEVELOP READERS, £120 PER PERSON
(NORMALLY £150) USE CODE: DELEGATELSC68

YOUR DELEGATE PASS GIVES YOU ACCESS TO THE ENTIRE FESTIVAL:
3 NIGHTS, 300 ARTISTS

PLUS: THE LIVERPOOL SOUND CITY CONFERENCE INCLUDING PANELS, WORKSHOPS AND NETWORKING EVENTS AND COMPLIMENTARY DELEGATE BAG

FOR MORE INFORMATION GO TO
WWW.LIVERPOOLSOUNDCITY.CO.UK
WWW.FACEBOOK.COM/LIVERPOOLSOUNDCITY • TWITTER.COM/SOUNDCITY

TURN UP THE
WICKED

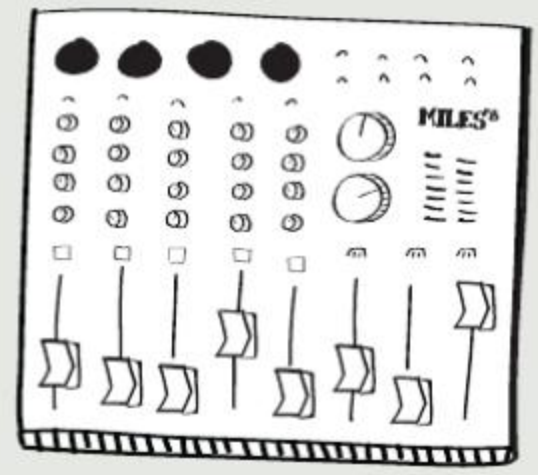
AUDIO IN YOUR GAME WITH
Miles 8

Our multichannel sound system features cool, new

high-level audio tools

+ the world's FASTEST

MP3 and Ogg DECODERS.



USING MILES 8 NOT ONLY MAKES YOU WANT TO **TURN IT UP**, IT MAKES YOU RAD.

www.radgametools.com
sales3@radgametools.com
+1 425 893 4300

RAD GAME TOOLS ©

Optimising Convolution Reverb

Simon Ashby, founder and VP of strategy at Wwise company Audiokinetic, offers an in depth look at implementing quality convolution reverb...

Simon Ashby started his career in 1997 as a game sound designer before founding Audiokinetic in 2003. Simon is responsible for the development of Wwise.

In post-production nowadays, convolution reverb is certainly the weapon of choice for reproducing realistic room acoustics and outdoor environments. For good reason too, since it's easy to use and it replicates real environments with precision and detail that surpasses traditional parametric reverbs.

In game development, however, convolution reverb is rarely used. One reason is that developers may not have the time and expertise to code such advanced DSP effects. But the most significant reason for not using convolution reverb is the general perception that convolution reverbs consume a lot of runtime memory and CPU resources.

> ***Considering the ease of use that convolution reverb provides, it's a tool to consider if you want your game audio at the next level.***
>
> Simon Ashby, Audiokinetic

Resource usage is directly affected by the length of the IR (impulse response) used by the convolution reverb. An IR is a recorded sample of a room's response to short impulse sounds, which are applied to the incoming audio signal. Typically, rooms with long reverb times generate longer IRs and use more resources at runtime, whereas smaller rooms generate shorter IRs and consume less runtime resources.

Audiokinetic fully understands the performance constraints in game development and has created a convolution reverb that adjusts memory and CPU usage based on available resources while minimising the impact on reverb quality. To optimise runtime performance, one of two approaches can be used by developers; either time-domain truncation or frequency-domain truncation.

TIME-DOMAIN TRUNCATION

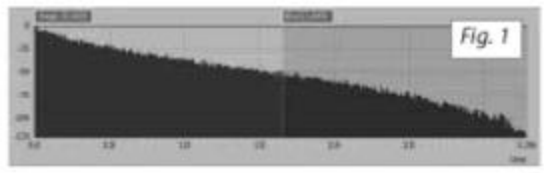
Since CPU and memory consumption are directly related to the IR length, significant optimisation can be achieved by reducing the length of the IR. This technique is called time-domain truncation. A good approach to shorten the IR length is to determine the noise floor level of the scene where the IR will be used and then reduce the IR end time to the point where the reverb tailgate artefact is inaudible. Playing a high energy transient sound through the convolution reverb over a room tone at the noise floor level of the scene where the IR is used is a good way to find the right end point.

Fig. 1: *IR truncated to cut just below the noise floor is twice as short and uses half the memory and CPU as the original full length version.*

Fig. 2: *Typical representation of an IR in the frequency domain where the dark region represents energy below -72dB.*

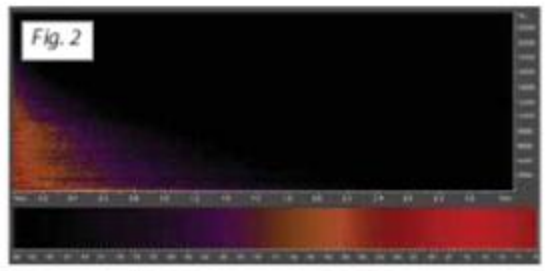
Fig. 3: *Effect of the threshold parameter on frequency domain convolution cut-off computation.*

Fig. 4: *Memory and CPU resources on Xbox360 using various time and frequency truncation settings.*

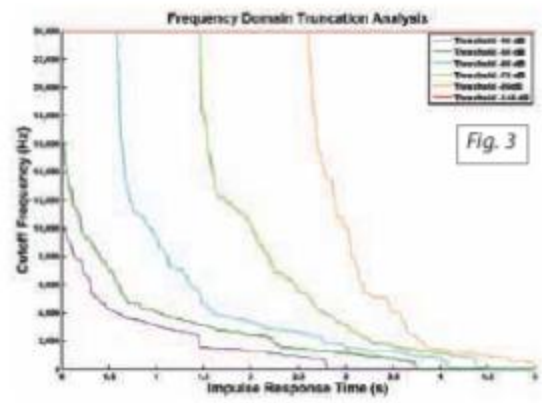


FREQUENCY-DOMAIN TRUNCATION

Typically, IR high frequencies decay more rapidly over time than low frequencies. When the IRs are convolved in the frequency domain, memory can be saved by discarding low energy frequencies from the IR.



With the convolution reverb effect you can discard these low energy frequencies by defining a threshold parameter that sets the level below which the energy contained in the IR is discarded to save CPU and memory resources. This further optimises storage and processing of the convolution at minimal or no cost in perceptual quality.



Setting the threshold value too high may introduce artifacts such as frequency sweeping and tail cut. As with time truncation, the best approach to find the right threshold value is to play back the convolution reverb over a room tone near the floor level. This way, it is possible to set the threshold value to a level where quality is preserved and resources are maximised.

COMPRESSION FACTORS

Using time and frequency domain truncation is a great strategy to reduce both memory and CPU usage. The following table shows various time and frequency truncation scenarios profiled on an Xbox 360 along with their respective compression factors.

Fig. 4

	Original IR	Moderate Truncation	Optimal Trunc. in Noise Floor
	End: 3.3 secs Thresh: -144dB	End: 2.3 secs Thresh: -65dB	End: 0.9 sec Thresh: -60dB
Memory Usage	7148kB	2693kB	1543kB
Memory Gain	-	2.6x	4.6x
CPU (Xbox 360)	35%	7.20%	4.40%
CPU Gain	-	4.9x	8x

CAN YOU AFFORD IT?

Resource budgets for high-quality DSP effects vary greatly among game developers, so it is difficult to generalise the answer to that question. Also, the convolution reverb might not be suitable for long reverb tail environments like cathedrals, for example, where a parametric reverb would probably be a better choice. But, the convolution reverb yields great performance for outdoor locations and short to medium size rooms and with time and frequency truncation, most concerns about runtime memory and CPU usage are a thing of the past.

Considering the ease of use and the high quality result that convolution reverb provides, it's the tool to consider if you want to take your game audio to the next level.

ww.audiokinetic.com

Need for Speak

EA has shifted up a gear with its online free racing game Need for Speed World, with the introduction of Dolby Axon. The audio outfit's **Simon Arnold** looks at what the technology offers developers and players…

Tapping messages into a keyboard during the fast-paced, action-packed world of virtual racing isn't exactly conducive to great gaming, especially if you race hard, but type slow.

However, this month, the world of racing games received a boost to the voice box when EA introduced the in-game voice chat technology, Dolby Axon, to its online Play4Free racing game, *Need for Speed World* – one of the first games to offer voice-chat entirely free to all users.

For many years, voice chat has been a laborious downloading exercise, fraught with unwanted clipping, and has arguably remained one-dimensional. But not any more. Dolby Axon, from the audio experts at Dolby Laboratories, is a large scale interactive voice system that promises to be more realistic, easy to integrate and won't prove a drain on gamers' bandwidth.

HERO OF THE PEOPLE

Need for Speed World is recognised as one of the world's most popular, free-to-play racing games, boasting over three million registered users. Equipped with incredible graphics, it is an addictive social format, which sees players compete against their friends or pick from thousands of top ranked players. However, until now, using voice chat to communicate with these adversaries has been an issue, because using a keyboard to communicate while playing the game online is about as practical as texting your mates while driving your family saloon on the M25.

Jean-Charles Gaudechon, producer for *Need for Speed World*, insists that the game's developers are constantly looking for ways to evolve the game, as evidenced by the recent additions of Team Escape and Visual Customisation. He sees the implementation of Dolby Axon as another step forward

> ***"Using a keyboard to communicate while playing games online is about as practical as texting your mates while driving your family saloon on the M25."***
>
> Simon Arnold, Dolby

"Working with Dolby Axon gave us the opportunity to offer a seamless and high-quality voice communication feature to all *Need for Speed World* players, enhancing our social gameplay experience," said Gaudechon, adding: "With the addition of Dolby Axon, we're confident that players will love voice chatting in high quality, without noise echoing or clipping."

Because Dolby Axon is fully integrated into the *Need for Speed World* game client, players don't have to set up a voice server or even install a separate client to use it. They simply set up a group and they will then be be automatically entered into a voice chat room with their other group members. They will be able to chat with them regardless of whether they're in Free Roam, a race, or if they are in their Safehouse.

Speaking about the added element of Dolby Axon in the game, Jane Gillard, EMEA marketing manager at Dolby, agrees that it will make an exciting addition for white-knuckle racers: "EA has taken the game from being text-based communication to a 3D voice component that includes surround panning and distance attenuation, voice fonts for improved role playing, and an advance occlusion engine that maps voices to the game environment.

"This means clear and realistic voice chat, making it easier than ever to communicate and strategise for Team Escape, or simply chat with group members as you cruise around with the rest of the community."

SEEING SOUNDS

One of the biggest challenges faced with such an extensive voice client was how to expose all of its features to users, but as Gillard explains, to help with this, a GUI has been added to the game to make all the functionalities of Dolby Axon easily available.

"Integrating an advanced voice client can be a complicated process that takes up crucial developing time," said Gillard, "but the Dolby Axon initial integration took a matter of hours."

The Dolby Axon client uses a proprietary codec that can be run in two different modes – one mode provides a very low bandwidth and the other one uses more bandwidth but is of higher quality. The two modes can be mixed on one server. This suits an MMO with the ability to support up to 8,000 concurrent users by a single server and bandwidth rates as low as 16kps per player.

www.dolby.com

Simon Arnold is the EMEA sales manager at Dolby. He promotes all Dolby technologies to both the company's gaming partners and its connected electronics partners.

Voices of reason

Studios are starting to recognise the increased importance of choosing the right mic for the right voice actor. Side's director **Phil Evans** offers some sage advice on handling talent...

Phil Evans is director and co-owner of Side, a production company specialising in casting, directing and recording actors for games. Recent work includes Dragon Age 2, Total War: Shogun 2; Brink; Fable III

Take a step back 10 years into any sound studio recording games dialogue and you're likely to find an actor standing relatively still in front of a high quality Neuman U87 mic, once considered 'the' mic for voice recording.

Look again today and you'll find a different story: shotgun mics like those used for location sound in film and TV, noise cancelling mics like those used by sports commentators, or lavellier mics like those used by theatre actors, to name a few.

Many audio leads already have ideas about which mics they like to use, or the developer or publisher may have strict technical specs that they have been conforming to for years.

But in this fast moving, creative industry, dialogue recording has become more than a matter of placing the same old mic in front of an actor. At Side we believe that the range of techniques available to the recording engineers of today need to be viewed as an integral part of the evolving 'creative' process; and must be considered at a much earlier stage of the production process than on the day of recording.

IN GOOD VOICE

Actors often talk about the challenge of working in computer games: of acting alone, without props or costumes, and generally without being able to move from the mic. These are considerations that the audio creatives of our industry should be tackling head on. The way dialogue needs to sound in a game, and the effect a mic choice or recording technique can have on an actor's performance, should be in the forefront of any audio team's mind.

Much has been written about the value of performance capture in achieving more convincing and engaging performances from actors, and few in the industry would dispute that this is usually the case. The combined benefit of the actors working together, with the freedom of movement that a lavellier or boom operated shotgun mic offers, is recognised by actors and directors alike as breathing considerable life into the characters being played.

But although these qualities are being recognised on the performance capture sound stage, the same principles are rarely being transferred to the vocal booth. Some argue that the audio quality of the lavellier mics often used is not comparable to that of a classic voice over mic, and so should not be used in the booth. Chosen well and positioned correctly, they can not only produce a sound that mixes pretty seamlessly into the game, but more importantly they give actors the ability to move in a way they simply can't with a fixed position mic. The dynamic performances that this can create in the booth can be quite dramatic.

> ***"Some argue that the audio quality of the lavellier mics often used is not comparable to that of a classic voice over mic, and so should not be used in the booth."***
>
> Phil Evans, Side

In games such as Ninja Theory's *Enslaved* the engineers at Side used lavellier mics in the booth to complement their use on the performance capture sound stage. This not only gave continuity in the sound of the dialogue throughout the game, but offered Andy Serkis and the rest of the cast the freedom of movement they desired. When recording the cast together, their ability to turn to face each other and to draw on each others' reactions really inspired each of their final performances.

SECOND NATURE

Recently, while still at the audition stage of one game, we found that the actors were having difficulty grasping the naturalistic style of performance required. We emulated the real life environment, opting for a headset mounted mic with the appropriate radio comms filter feeding back to the actors' headphones. The actors could feel what it was we were looking for and tuned performances accordingly. With the right man for the job, the project was recorded in the same way.

DICE is one developer that has been advocating such context based ideas for some time in their *Battlefield* titles, like recording battle shouts outside rather than in the vocal booth. They confidently affirm the improvement on both sound quality in relation to context and on actor performance.

In filmed facial capture sessions, the audio team is often working with a static camera in the vocal booth. Keeping the mic out of shot is easily overcome by using a shotgun mic, which can record the actor from a greater distance than a traditional 'voice over' mic. Being used regularly for film and TV location shoots, the sound they produce is one that mixes well into 3D environments.

It seems clear that the context of the audio in game, the way the dialogue mixes into game environments and perhaps more crucially the effect this has on the performances gained from the actors are all matters that must be considered before embarking on dialogue recording. With the increased use of experienced script writers and directors in our games it is vital that the technical audio team bring added value too.

www.sideuk.com

Social Sound Solutions

If you need to move your audio assets across the web, where do you turn to? Sound City's **Jon-Paul Waddington** takes a look at two companies leading the way in social audio...

Your average tech-head tends to love nothing more than the next big thing, hopping from start-up to start-up, populating a space then vacating it as soon as the next site/app/plug-in becomes the place to be seen.

But some trends bear closer examination. Some trends outlive the initial novelty value and hype, and in doing so become valid, valuable and, crucially, actual honest-to-God useful additions to your digital life.

Social audio is set to be just one such sector, something that may well become a permanent feature of how we all inhabit and populate the digital space.

However, you need to know where to plant your flag. And for now the best two in the field are engaged in something of a David and Goliath face-off.

SOUND IN THE CLOUDS

Coming out of Goliath's corner, with a heck of a lot of backing including the support of uber-VC Fred Wilson of Union Square Ventures, is SoundCloud.

Lauded as something of a MySpace killer – though you may argue MySpace did a good job of finishing themselves off way before that – SoundCloud is already well regarded and widely used in the music industry and is rapidly becoming the standard tool for sharing large, studio standard files, be they individual tracks, mixes, audio podcasts or radio shows.

Its clean interface, bags of add-ons, desktop or app versions make it a very attractive proposition.

It negates the need for an occasionally cumbersome FTP set-up, so if you're sending large bulky uncompressed music files from one developer to another, SoundCloud can take valuable time out of the process.

But the SoundCloud team are not content there. In addition, they're making a concerted effort to push further into the social realm: from the usual followers/friends type angle, they've recently moved into beta phase with another service called Take Questions.

Take Questions is an 'audio Formspring' or, God forbid, an 'audio Quora' that grew out of a Music Hack Day session with Imogen Heap. It lets users ask and answer audio questions.

> ***"Social audio tools can be a valid, valuable and useful addition to your digital life."***
>
> Jon-Paul Waddington
> Sound City

It also provides record functionality called 'digital field notes', which allows users to capture sounds wherever they are.

This new service is where SoundCloud began to encroach on the territory of the David of this little fable – AudioBoo.

BOO ON STAGE

AudioBoo launched in March 2009. It's an app which was initially pitched as an audio Twitter, with Boos replacing Tweets.

Though it was partially supported by Channel 4 – it wasn't anywhere near as heavily funded as SoundCloud. All very sociable, innovative and diverting for sure, but where it's really come into its own is in just the area it now overlaps with SoundCloud. The ability to take short, snappy audio clips has been utilised by those both citizen and professional – perhaps most effectively by The Guardian in their blog coverage of, for example, the G20 riots or the recent anti-cuts demos.

AudioBoo provides mini-reports, live from the front line, delivered with great ease and again scores highly in terms of usability with geotagging and photo attachment options. It's more of a pure, out-and-out mobile app than perhaps SoundCloud, and AudioBoo make no bones about the fact as it was the company's aim from the start.

So, if you're feeling that tweets and posts just don't cut it and you need to move your audio assets across the web, where do you turn to? Well, without wanting to hedge our bets the simple answer is that you probably need both of these tools.

For a short burst of sound delivered on the hoof, AudioBoo is your weapon of choice – for longer tracks, uncompressed sound or mixes, it's SoundCloud all the way. And a little competition between the two can only be a good thing for eager customers looking for ever-improving platforms so it's very much a win/win situation.

And before anyone says it, the dead tie is nothing to do with the fact we're got Mark Rock of AudioBoo and Dave Haynes of SoundCloud both speaking at Sound City this year. How very dare you even consider that to be the case.

www.liverpoolsoundcity.co.uk

Above: JP Waddington is Convention Director for Liverpool Sound City

Sound Cloud co-founders Eric Wahlforss (left) and Alexander Ljung (right)

Organising Orchestras

Of the many trapdoors in creating orchestral scoundtracks, one of the most common can be lazy planning and organising. **Richard Beddow**, audio manager at The Creative Assembly, explains how to keep everything tight

Above: Richard Beddow, Audio Manager at The Creative Assembly

Over the last decade, budgets have increased and game production quality has improved. Now more than ever, cinematic presentation is prevalent in video games, and with it comes a demand for compelling, high quality, orchestral music to support these productions.

It can seem a daunting prospect - sat in a meeting all afternoon with the project leads, discussing the game's direction, tone, timescales; and the overwhelming consensus is that they want this big, epic, Hollywood-style score behind it. You know production costs will be significant, that you've got to produce X minutes of music for 80+ musicians to play, that with many people involved in such an undertaking there is more risk to manage, and that you can't afford to fail. How do we make the process of delivering a cinematic score painless?

In this article I'm going to present some of my own practices which have helped me manage and produce orchestral music.

Hopefully this will guide composers who have yet to venture down this road, or help refine, reconsider workflows, or provide some interest for those already in the trenches.

Templates: MIDI Track Folders

The orchestral sound we have generally become used to in video games/films is one of symphonic proportions, comprising of around 80 musicians.

Today, composers have a wealth of sample libraries available, which provide the electronic versions of these musicians we rely on as tools to craft our scores. However, writing for so many musicians, with combinations and orchestration to consider, and with huge arrays of sample libraries in our kit, we need a way to organise our resources and structures to enable efficient workflows. This is where templates come in.

Irrespective of your composing program, the idea behind creating a composing template is identical. A template is a collection of pre-configured tracks, plugins, effects and mix settings within your project, ready to use with each new piece. For electronic styles this could be as simple as having a template containing your favourite synths, drum machines and effects; all set up, wired and ready to go.

Orchestral templates, however, are a much larger effort to set up. With so many instruments in an orchestra, and libraries of sound sources, if you literally create a giant track-list in your sequencer with them, or create tracks ad-hoc, you'll quickly find it can become problematic navigating and working quickly in your project, with the list spanning beyond the screen boundaries, requiring much scrolling and hunting for the instruments you want, hindering creativity and efficiency. Fortunately, many programs offer 'track folders' allowing grouping of tracks of your choice into a folder, then hiding those tracks when you don't need them visible. This can seriously reduce the screen clutter, but can also help visually divide your orchestra for clearer presentation and much swifter navigation.

> ***With so many people involved in epic, orchestral soundtrack design, there is more risk to manage. You can't afford to fail.***
>
> Richard Beddow, The Creative Assembly

My template groups the orchestra into four main folders: woodwind, brass, percussion and strings. Within these track folders I'll nest more track folders grouping numerous playing styles (articulations) for the instruments. For example, the strings track folder contains a first violin ensembles track folder, which contains tracks for articulations like sustains, short notes, effects and so on. You can add as many articulations as required to give flexibility when writing.

Furthermore, track folders can provide overviews of the MIDI material within the folders when they're closed, enabling you to still see where sections of the orchestra will be playing.

While helping me prepare for live sessions, I find that structuring track folders in my template top to bottom following the standard orchestral order really helps speed up navigation. So, the order would be woodwind, brass, percussion, strings. I can quickly locate the specific area of the orchestra I want to work with rather than hunting down articulations that could be spread anywhere. This can be further enhanced by colour-coded tracks and folders.

It's also worth noting the usefulness of set naming conventions for tracks, folders and articulations. It's easy to get lazy and

abbreviate things or become inconsistent, but quite simply it will help you traverse your project quicker. Additionally, it will help the orchestrator if you later have to deliver MIDI files for producing the sheet music; they can quickly see how you want the music to be performed and on which instruments, in a traditional structure.

Program Changes and Key Switching

If, like me, you want many articulations available for flexibility, you may find that even using track folders, your nested folders can become sizable. You can further optimise your template using program changes and key switches.

By configuring your samplers to use program changes or key switches for selecting articulations, you'll reduce the number of tracks within your folders needed for each instrument. For example, my template has 'LAScoringStrings' loaded; without using this technique I'd require ten articulation tracks for the first violin ensembles alone.

However, using program changes I'll reduce this to four tracks, one each for the sustain, short, effect and sordino articulations. Using program changes, I'll then select the articulation to play on each track. Going further, you could put all your articulations on one track if that suits your working method, but this makes it harder to see at a glance what type of notes – long, short, effects etcetera – any particular instrument is playing at a given time.

Key switching is similar, in that it allows you to change articulations during playback, but rather than achieving it using program changes, it does so using standard MIDI notes mapped within your sampler to trigger the desired articulation to play on that track.

Channel Groups

Often, we need to get ideas down quickly, whether we're just sketching or creating orchestrations. One useful feature many programs support is 'channel groups'. These enable you to assign a track in your sequencer to trigger simultaneous articulations assigned to multiple MIDI channels. This allows you to create layered blends of instruments that play the same melody, and try pre-set orchestrations out very quickly, which would otherwise require a lot of cut-and-paste and volume-tweaking between tracks.

Balance and Perspective

Having many sample libraries can offer choice and the ability to tailor articulations to the task at hand. However, with so many articulations, it's important to integrate them into the template in a way that keeps workflows efficient.

Often it's frustrating and time-consuming working with multiple libraries because they're produced by different manufactures, without set conventions for how they're recorded, panning arrangements or volumes for these instruments. The result is that you'll be constantly tweaking volumes, pan/mix settings etc. throughout the authoring process, losing efficiency and slowing creativity.

The solution is to re-balance the instrument volumes and pan positions as you build your template, such that you balance out and limit the discrepancies between them.

If you need quality mock-ups or intend that all/part of your score will remain MIDI, ensure that since some libraries are recorded with reverb, some without and differing perspectives, you correct for this using reverbs/EQ, closing the gap between the libraries. I find that having an even, balanced and well-blended MIDI orchestra really helps keep creativity and inspiration rolling, since you're not tweaking or being distracted by the balance and sonic differences.

www.creative-assembly.co.uk

PitStop
PRODUCTIONS

Audio
Music Creation
-Sound Design and Foley Creation
-Full Voice Production including casting
-Script writing and editing
-Localization
-In Game Audio Engine Programming - Unreal, FMOD, WWise

Visual
CG services/Animation
-Full live action visual production including camera crews, lighting and location recording
-Full casting service
-In house and global green screen visual production
-Complete Visual Post Production including SFX
-HD and 3D production and post-production

Other
Entertainment Legal Services (contracting)
Sourcing and booking of named / celebrity talent
Sourcing and booking of named production talent

PIT STOP NEW YORK
PIT STOP LONDON
PIT STOP PARIS
PIT STOP STUTTGART
PIT STOP ROME
PIT STOP MALAGA
PIT STOP NORTH

Telephone: +44 (0) 1226 249 067 / Email: info@pitstopproductions.co.uk / www.pitstopproductions.co.uk

19 - 21 July 2011
develop in Brighton

BROADEN YOUR SKILLS, YOUR NETWORK, YOUR HORIZONS

Join 1,300 international game developers and choose from over 80 top-notch sessions across 3 inspiring days.

19 July 2011
evolve in Brighton

Tuesday 19 July

The forward-looking Evolve conference focuses on all that is new in game development - new platforms, new technologies and new markets.

The Evolve programme will help developers tackle the issues arising from emerging platforms and digital marketplaces, connected gaming, user-generated content, and the crossover between games and Internet services.

20 - 21 July 2011
develop in Brighton

Wednesday 20 & Thursday 21 July

Main conference tackling the issues, tools, tricks and techniques of game development and offering practical advice and solutions.

ART · BUSINESS · CODING · DESIGN · PRODUCTION · THE DEN

GAMES:EDU:11

Developing the developers of tomorrow

Wednesday 20 July

A forum where games dev academics discuss how to create and maintain the best possible learning environments for their students.

21 July 2011
audio day

Thursday 21 July

A day of sessions dedicated to game audio and music, with world-class speakers and practical programme.

21 July 2011
indie dev day

NEW!

Thursday 21 July

The new **Indie Dev Day** aimed specifically at independent developers offers tons of sessions, a chance to meet publishers and mix with other indies. Plus, **Indie Showcase:** a dedicated area within the Develop Expo (20-21 July) featuring some of the exciting and new indie projects currently under development.

The Main Event for European Developers

International Media Sponsor: develop

Media Sponsor: gamesindustry.biz

Media Sponsor: EDGE

Media Sponsor: GAMASUTRA — The Art & Business of Making Games

Media Sponsor: casualgaming.biz

Media Sponsor: IMAGINE

Early Bird
Book before
15 June Save 20%

WHO'S SPEAKING?

EVOLVE

Keynote ☆
Lessons Learned Building Moshi Monsters to 50m Users
Michael Acton Smith, CEO, Mind Candy

Keynote ☆
Moving the Goalposts – Bringing Social Experiences to All Game Platforms
Andrew Wilson, SVP of Worldwide Development for EA SPORTS

One Price Does NOT Fit All
Noel Llopis, Snappy Touch

Rolling from iPhone to Console - Lessons Learned from an Independent Developer
Simon Oliver, Hand Circus

Bringing Innovation to Multiplatform Development and Deployment
Tim Closs, Ideaworks

New Stories for New Platforms
David Varela, Freelance

45 Games in 45 Minutes: A Brisk Guide to Mobile Gaming Innovation
Stuart Dredge, Freelance Journalist

DEVELOP

Keynote ☆
The Stereoscopic 3D Experience - The First Year of 3D on PlayStation 3
Mick Hocking, Senior Director, SCEE

Keynote ☆
Managing the Mystery
Laura Fryer, VP and General Manager, WB Games Seattle

Keynote ☆
Showtime: Learning to be Creative on Demand
Iain McCaig, Artist and Conceptual Designer

No Console Required? – Bulldozing the Barriers to Entry
Andrew Eades, Relentless

From Phones to High End PCs: How to Scale Your Technology
Aras Pranckevicius, Unity Technologies

Innovation - A State of Mind
Nick Baynes, Black Rock Studio

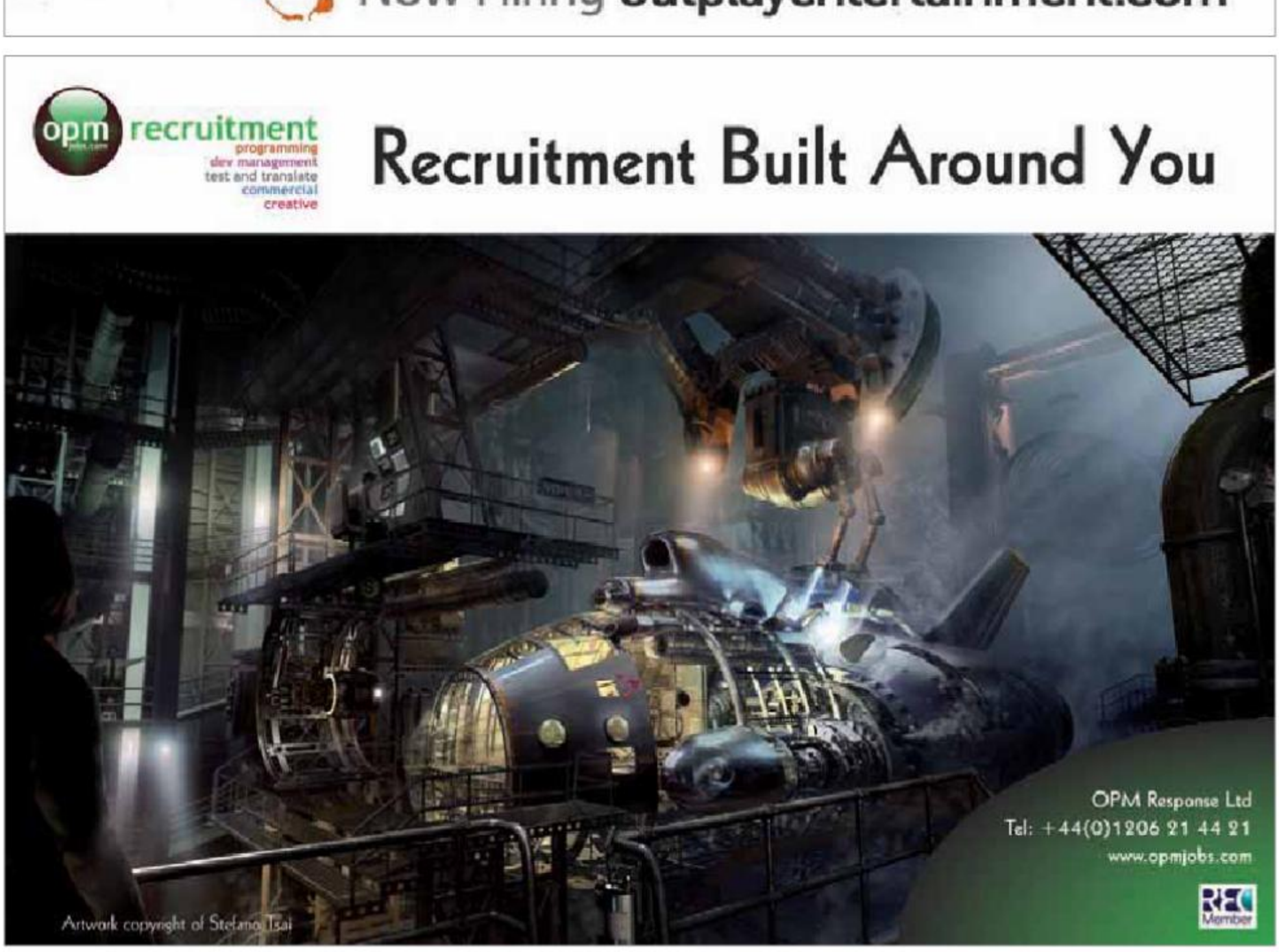
Being Agile in a Waterfall world
Brynley Gibson, Zoe Mode

Plus many more... see website for more information.

www.developconference.com

Media Sponsor AUDIO MEDIA
Media Sponsor gamedeveloper
Member Discount GAMEREPUBLIC
Member Discount ukie
Member Discount TIGA
Member Discount igda
Organised by tandem events

MAKE IT FUN!
Outplay
entertainment
Now Hiring outplayentertainment.com


opm
recruitment
programming
dev management
test and translate
commercial
creative
Recruitment Built Around You
OPM Response Ltd
Tel: +44(0)1206 21 44 21
www.opmjobs.com
REC Member
Artwork copyright of Stefano Tsai

Dealing with a serial killer

Poorly crafted game design documents have sounded the death knell of countless projects, both good and bad. **Sylvain Liège** of software development consultancy Liemur offers some advice on best-practice with GDDs…

The written word will always struggle to rival the efficiency of face-to-face communication

We all know that 'requirements' quality is a major factor in developing a hit title. The subject has been covered at many conferences, and books have been written on how to model and improve them. But to my mind, the deeper and root cause of many trans-project bottlenecks is often intrinsic and completely missed - namely the subject of 'ambiguity'.

The first challenge faced by games designers is to accurately convert their world of ideas into a world of words. For example, into a games design document (GDD). This exercise is essential for scope, but will also create issues for the following reasons.

Firstly, some ideas are not conscious enough to be converted into words, so about 30 per cent are lost. Secondly, a further 20 per cent of the ideas that can be converted are partly 'damaged' on the way. And finally, when the written document is received by others for implementation, ambiguities remain that require interpretation. Some of these readings will be wrong, resulting in 20 per cent being badly implemented.

LANGUAGE IS TRECHEROUS

To formularise: For every 100 ideas or features desired only 44.8 per cent (100 by 0.70 by 0.80 by 0.80) are implemented accurately in the natural world of software. Yes, less than half, and a major cause of change requests.

Why? Because written language is treacherous. It was originally invented to calculate how many cows we bought and sold at market. More typical communication is conducted face-to-face, and studies show that 80 per cent of a message is not conveyed by words, but rather by human interaction.

Beyond that, even hoping for precision in a written document is pure fantasy. The best example is that after thousands of years of writing laws, we are still totally unable to write an important document that is clear enough to not demand a first 'interpretation' by a solicitor or judge. That's how lawyers make their living.

I have seen some astonishing statements in GDDs I have worked on. Examples such as 'accidents need to be spectacular (without being gruesome)'. Such a description is not testable. It appears to be sufficient, but will lead to interpretive troubles later. And that's when your change requests will begin. They contain no clarity.

For example, if I told you that, 'I've had a tough day,' you would simply nod in affirmation. But then if I ask you what I meant, you may begin to see problem.

> ***The culprit is not the hard-working human behind a keyboard, but the written language; superb for writing a novel, but so weak at precision.***
>
> Sylvain Liege, Liemur

LOST IN TRANSLATION

My day may not seem so tough to the receiver of the message – it's based on their experience. This phenomenon is common in GDD's and, all too often, around a dozen ambiguities are common per page. All are excellent dream makers but publishers put fortunes on such statements.

That's a big gamble. In fact, the biggest culprit is not the hard-working human behind their keyboard, but the written and natural language; superb for writing a novel or poetry, but so weak at precision. Would a mathematician ever express a differential equation in plain English?

So, what can we do to improve things? Below is a process we often use with clients:

- Scan the GDD and any other requirement. documents to look actively for ambiguities
- Have a number of your core team carry out the same exercise.
- Write down each ambiguity
- For each one found go through the following cycle:

1. Identify the type of ambiguity (you need to define a typology of the ambiguities you encounter for your kind of project - it is likely to be different for an FPS, a RTS or a simulation game)
2. Grade the severity; for example, the consequences it may have if misinterpreted
3. Identify a possible mitigation solution
4. Assign the removal of the ambiguity to someone on your team
5. Measure your level of confidence in the possible solution
6. Measure the level of testability once cleared
7. Measure the overall risk value of the ambiguity on the project

For the ambiguities you cannot clarify (there will be some, but less than you think), flag them and make sure that both studio and publisher agree that the ambiguity – and its possible consequences – are acceptable and better left as is, rather than resolved. It is important to understand that removing an ambiguity is not necessarily done by adding words to the document. Often, the more you write the more ambiguities you are likely to add. It's the very nature of the trap.

This strategy will present you with a completely different understanding of the risk on your project. You make the project testable. You drastically increase the quality of the expectation of the different parties before each delivery. The level of trust amongst the project's stakeholders is built tenfold. Ultimately, your project will gain a greater ability to complete on time, within budget and to all parties' expectations.

www.liemur.com

Sylvain Liège is a director and co-founder at Liemur. He has a PhD in Computer Science. Liège is an expert on the 'human dynamics' that exist within software development projects, and played a pivotal role in the creation of the Project Cycle Optimisation model.

The High Fryer

Laura Fryer has made it to the top as the general manager of Warner's Seattle studios, and now she's heading to Develop in Brighton to address the crowds. **Will Freeman** finds out why...

For Laura Fryer, joining Warner from Microsoft was "like swimming in the ocean after swimming in a pool for your whole life".

When Laura Fryer moved from her executive producer role at Microsoft Game Studios to oversee Warner Bros' Seattle-area operation, she eventually found herself managing three of the company's sizable studios.

Having gained a wealth of experience at the top of Monolith, Surreal Software and Snowblind – which today share a single location – Fryer is heading to the Develop in Brighton to offer advice on managing studios and making money from creative endeavors.

Develop caught up with Fryer to find out what's motivating her trip to the UK's cheerful seaside city, and hear about what work the studios she leads have underway.

What do you plan to talk about in your Develop in Brighton business keynote?
I'm going to talk about balancing business needs with the needs of creators. How can we keep food on the table while still making a great game? It's been a challenge for as long as there have been hungry artists, so it's obviously a hard problem, and I look forward to sharing our approach.

What makes the topic you are approaching particularly relevant to the industry today?
Now more than ever, our industry is subject to massive upheavals in technology, platforms, and ideas, which makes game development even more challenging from a business perspective.

Change represents both opportunity and risk, creatively and financially. If we can work with it, we can foster and protect the creative process while still adapting to the business environment.

Why talk at Develop in Brighton? What's the appeal of the conference?
I have a lot of industry friends on the other side of the pond, and I've heard good things about Develop in Brighton, so it seemed like the perfect opportunity for 'a pleasant walk, a pleasant talk, along the briny beach'. I look forward to seeing old friends, making new ones, and sharing and learning as much as possible with both.

How is studio management changing as the typical game studio changes?
I think the biggest change over the last few years has been the growth in both team size and number.

Teams are bigger, with bigger budgets, but there are also a lot of new opportunities for smaller teams. Both of those pressures – to grow larger and to grow more numerous – have added lots of moving parts, lots of interfaces and lots of chances for things to go wrong.

> ***"Change represents both opportunity and risk, creatively and financially. If we can work with it, we can foster and protect the creative process."***
>
> Laura Fryer, Warner Bros

It's one thing to help a team of 10-to-50 people to work well together, quite another when you scale into the hundreds of people. But there are ways to manage that kind of complexity, and keep everyone engaged, happy, and working towards a shared creative vision.

What has your move to Warner taught you about studio management?
It's been like swimming in the ocean after swimming in a pool for your whole life. I've learned to scale my communications across larger groups of people. I've learned that as the number of people grows, the odds of misunderstanding approaches 100 per cent.

I've learned the difference between shipping games at a software company and shipping games at an entertainment company. I've learned how much it costs to throw a party for 600 people. I've learned that trust is our bedrock, that our differences make us stronger, and that we're more together than apart.

What does the future hold for Monolith, Surreal and Snowblind?
Snowblind is currently working on *The Lord of the Rings: War In the North*, the co-op action RPG launching this year. By conference time we should also be able to talk about the latest game from the creative team behind *No One Lives Forever* and *F.E.A.R.*, and what we've learned along the way.

The three studios are closely aligned. How are the separate outfits evolving and developing together?
We started out in three separate locations, and then moved together under one roof, so that's a big change that's still unfolding.

Being together has lots of advantages; it lets us work more closely, adapt fluidly, play each others' games, offer advice, help each other, inspire. It's also nice to be able to choose between multiple projects, and be able to change projects without having to change friends.

On the other hand, it's a little scary, because team cultures can be subsumed by the whole.

But, when you let go of your fear, you discover that you can hold onto what is really important, the best of each studio's culture, while also becoming something more together.

www.developconference.com

DEVELOP IN BRIGHTON
Date: July 19th to July 21st, 2011
Venue: Hilton Metropole, Brighton, UK
Prices: £50 - £680. Early bird deadline: June 15th
Tracks: Production, Coding, Art, Design, Business, Evolve. Audio, the Den
Other elements: Games:EDU, Expo, Indie Dev Day

THE HOT LIST

Develop 100 lists the world's 100 most successful games studios based on key market data

Published with Develop in June and MCV's E3 issue (June 3rd)
See new microsite at **www.develop100.com** from June

12,000 copies plus digital edition. Additional circulation of Develop 100 at Develop Conference Brighton in July and Develop Industry Excellence Awards

Contact alex.boucher@intentmedia.co.uk
for advertising and sponsorship opportunities
+44 (0) 1992 535 647

Co-Sponsor

gamecity:Hamburg

GDC 11 Europe

Game Developers Conference Europe™ 2011

August 15th - 17th, 2011

Congress-Centrum Ost Koelnmesse | Cologne, Germany

www.GDCEurope.com

Summits
(Monday - Wednesday)

- Independent Games
- Smartphone & Tablet Games
- Social Games
- Community Management

Main Conference Sessions
(Wednesday - Friday)

- Business & Marketing
- Game Design
- Production
- Programming
- Visual Arts

Expo Floor
(Monday - Tuesday)

Explore the latest in game innovations and talk with industry experts.

GDC Europe VIP Lounge
(Monday - Wednesday)

Broaden your networks and connect with fellow game developers and professionals from the European games industry.

Game Developers Conference Europe™ 2011 (GDC Europe) is the essential platform for learning, networking, and opportunity for the creators of computer, console, handheld, smartphone, social, and online games in Europe.

Join us at the **Game Developers Conference Europe™ 2011**, August 15-17, for three days of over 100 sessions, as we cover a comprehensive selection of European game development topics taught by leading domestic and international industry experts.

Register before July 20 and save up to €100!

Supported by

European Games Developer Federation · BIU · gamescom

For more information please visit
www.GDCEurope.com

UBM

BUILD

THE LATEST TOOLS NEWS, TECH UPDATES & TUTORIALS

HEARD ABOUT: Integrating audio and UI, p61

KEY RELEASE: NGP-ready Vision Engine

p54

TUTORIAL: Animating El Shaddai

p56

ART: MotorStorm Apocalypse

p63

Havok goes mobile

Software titan takes one giant leap into the Android arena, p52

EPIC DIARIES: UNCOVERING THE GUARDIAN PROJECT, p59

MOBILISING HAVOK

When Havok ported its household name technology to support Android devices, it set out to change the future of mobile gaming. **Will Freeman** caught up with Havok's vice president of engineering Dave Gargan to find out more...

Havok's Dave Gargan, like the rest of his comapny, sees mobile as a key space for tech companies

What motivated Havok's recent move on the mobile space and the Xperia Play?

I'll be very honest. This is a new space for us. We have only started to actually move any of our technology to handheld devices, and by that I mean mobile phone devices, because we've previously offered support for things like PSP for a long time.

The technology itself is really about optimisation. All of our tech is primarily CPU-based. We don't have to worry about the fragmentation that you see in the market around GPUs. We don't have to worry that much about different devices having different graphical abilities.

It's a good time to work with mobile. Most of the devices are essentially ARM-based, so for us that's perfect. We have lots of optimisation for ARM, and we support NEON optimisations throughout the code base, so really the transition for us has been relatively straightforward.

And I definitely see that with a lot of these devices several of the IPs that we see today that are 2D-based are going to move to 3D. That's quite natural, as people still want the kind of cinematic experience they get with a modern console game, and they want to take some of that with them as they get on a flight or get on the bus.

So it's a response to the seed change in the industry that has seen mobile gaming rise to prominence?

Absolutely. And that change has just come from – for example – independent developers. You see the change happen with large companies and publishing houses too, who want to tale their IP through a whole range of devices, taking a franchise from console through the likes of XBLA console and then on to mobile.

For them, then, when they adopt a cross-platform solution, Havok just means that it will be so much easier to bring that onto the same API. It's the same code across a whole range of devices.

> ***"All of our tech is primarily CPU-based. We don't have to worry about the fragmentation that you see around GPUs."***
>
> Dave Gargan, Havok

How have the expectations of your customers affected the direction you take, and how are you moving to accommodate the smaller studio models that many mobile developers run?

We're certainly being pushed by our customers. Yes, it's by our existing high-end customers, but there's also a wave of demand from customers that typically aren't Havok customers. Our typical customers have large development budgets for triple-A titles. So

The tech demos of Havok running on the Xperia Play (above) offer impressive physics-based gameplay

we announced a new programme we're calling the Havok Strike program, which is a business model that suits the developers with much smaller development budgets. That gives those guys an opportunity. They are on smaller dev cycles and have smaller budgets, but they want access to the same type technology used on triple-A games.

So as well as broadening the number of platforms for which Havok is relevant, you're broadening the range of customers you work with. Has that been important?
Absolutley. It's necessary because that's the way the industry has changed.

That change is certainly testing the industry's best today. Does it mean we'll see Havok embracing more new platforms?
Absolutely, and particularly when it comes to CPU architecture. Now, in general CPU architectures don't have that many seed changes very quickly, but we certainly look at all the trends that we see in that space. For instance the Beast devices.

Another important change in one that's happening in the mobile space and that's multi-processor. It's already started with the iPad 2. Obviously we've been working with multiprocessor for a while now, so we can take a lot of what we've done and apply it to the devices.

Surely though, this proliferation of new platforms that are becoming relevant to Havok presents an enormous challenge?
They certainly do bring new challenges. One of the things that is new to us – and this is something that we haven't had to worry about in the past – is power consumption. Previously we've been used to concentrating on making all the use of the CPU that we actually can, and making it work 100 per cent of the time. Now, with mobile platforms you want to balance that with – and scale back to – preserving battery life. Today we don't just have to worry about CPU performance and memory usege; we have to think about battery life, and that's totally new to us.

Is it fair to say, then, that it's tougher to make tech for mobile platforms despite their architecture being simpler in many regards to that seen in the platforms Havok is familiar with?
Certainly. And there's also the fact that the appeal of the content has to be far broader, or often they are titles for different very specific niches. For Havok a lot of our heritage and a lot of our tech comes from one niche. Namely first-person shooters that use ragdoll physics. That's where we ended up in a lot of games. It was only when people would adapt the tech and use it for things like collision detection and in other ways throughout the pipeline.

> ***"Something we've done deliberately is make the feature set the same for the new mobile devices as it is on the rest of the devices."***
>
> Dave Gargan, Havok

How does the feature set of your mobile tech compare with that of the existing Havok products?
Well, something we've done very deliberately is made the feature set the same for the new mobile devices as it is on the rest of the devices we cater for.

Now, in terms of the amount you can simulate on mobile, obviously it's different if you've got a huge PC, but the features are there and you can bring those features across to mobile.

Was there any particular focus when establishing which of your technologies were most suited to mobile?
We carried everything across, so the focus was around looking at if there were special pieces of hardware we could take specific advantage of.

So there's NEON processors in some of these phones, which are just like SIMD processors in PCs or Xbox 360, so we take advantage and target those throughout. But the other thing that we consistently do that makes our tech applicable on lower end devices, is that we really concentrate on memory size. That's one of the biggest focuses for us; to keep reducing memory usage, and that helps us across the board, particularly on these devices.
www.havok.com

Xperiencing Android

When Havok ported all seven of its products to Google's Android platform Gingerbread 2.3, it chose to optimise the tools for Sony Ericsson's new Xperia Play device.

"Certainly it's one of the finest phones I've ever worked with," said Havok's vice president of engineering Dave Gargan. "I like the fact that they are making an attempt to bridge that gap between console gaming and mobile gaming by providing people with a set of controls. Some of the tech demos simply don't work unless there are buttons to use. If we don't have buttons we have to make huge adaptations to the control and the environment to make it work, and I think that's where we are going to see a lot of innovation."

Havok has already made public impressive demos of its technology running on the device. Hands-on time with the technology at the recent GDC revealed the likes of 3D rag-doll physics of a standard on recently confined to console and PC.

KEY RELEASE

This Month: Stuart Richardson looks at Trinigy's Vision Engine

WHAT IS IT?: A game engine recently optimised for Sony's powerful NGP handheld
COMPANY: Trinigy
PRICE: Various - see web
www.trinigy.net

Together with his team Trinigy's Felix Roekin (above) has expanded the Vision Game Engine to cover as many platforms as possible, including Sony's NGP, demoed above

AFTER EIGHT iterations, the Vision Engine has served as the development platform on over 200 commercial projects and is available for Windows, Xbox 360, PS3 and Nintendo Wii, with work ongoing on an iOS build. Services are also available on XBLA, PSN and WiiWare.

Recently, this impressive range of capabilities was expanded on again with the announcement that Trinigy's respected engine will be available for development on Sony's new NGP handheld as of this very month. Trinigy general manager Felix Roekin took the time to outline to *Develop* what studios could expect when making games for a new console on an established engine.

IT TAKES TWO

"Developing a game for the NGP using the Vision Engine is as straightforward as building a game for PC, Xbox 360 or PS3," he says.

"Developers can take full advantage of the Vision Game Engine's multi-threaded features, and can use the same tools environment, the same asset types, the same game code and many of the graphical effects provided by other platform versions of the engine. Unlike on other mobile platforms, the full shader set used on the PC and console versions of the Vision Game Engine is available on the NGP version."

The successful integration of the Vision Engine's tech with the the NGP has also opened up interesting functional abilities.

"Since the PowerVR-based graphics chip used in the NGP supports a number of platform-specific texture formats, the NGP version can load these textures in addition to the other texture formats supported by the Vision Game Engine," Roekin explains.

"Also, it fully supports the advanced input capabilities of the NGP, like the multitouch screen, the back touch panel and the accelerometers. Finally, the Vision Engine will offer integrations to those applications that have available support for NGP, including Havok Physics, FMOD Ex and RakNet."

ME AND YOU

As for what the Vision Engine can offer studios interested in NGP development that they cannot find elsewhere, Roekin is similarly outspoken.

"Developers familiar with our technology can simply start using the Vision Engine to create their NGP games. There is nothing new to learn. As well as this, as we do with every platform version, we have optimised the engine specifically for the NGP in order to maximise the quality of games that can be produced for that platform," he says.

> ***"We have optimised the engine specifically for the NGP in order to maximise the quality of games that can be made for that platform."***
>
> Felix Roekin, Trinigy

"What this means is that porting games from, for example, PlayStation 3 to NGP with a similar level of graphics quality and immersive gameplay is a very straightforward proceedure."

And from a personal perspective, Roekin has a point-blank opinion on the value that the NGP-ready Vision Engine can offer: "I'd say developers considering the NGP should really consider what they are looking for in a game engine. If they want a powerful technology that offers them a lot of flexibility in the tools they use and the games they like to create, as well as grow with them as they move onto more platforms, they should definitely have a look at the Vision Game Engine."

MASTER OF ALL TRADES

German middleare firm Trinigy is proud of the extent to which its Vision Engine has become a capable and worthy solution almost across the board of game platforms, and integrated itself into the international development community. As Trinigy general manager Felix Roekin explains, the engine has come a long way since its launch back in 2003.

"The Vision Game Engine is optimised for a number of platforms, and now supports all of the major services like XBLA and PlayStation Network," he says.

"It integrates with over 20 middleware packages, and includes FMOD and RakNety for free. Its WYSIWYG editor, vForge, is not only versatile, it's highly extendable. vForge is also a versitile tools framework which can easily be customised and extended through a well-defined, powerful plugin API."

And Roekin is assured of the reason that his company's engine have been adopted on so many projects over its lifespan.

"We truly believe that support is critical," he says. "We go to great lengths to support all of our customers, and find that they really appriciate access to us whenever they need us."

THE DEVELOP QUIZ

SIGN UP NOW!

Only £219 per team of five players

avatar GAMES RECRUITMENT
Round Sponsor

JAGEX GAMES STUDIO
Joint Headline Sponsor

WHO'S GOT THE biggest brains IN GAMES DEVELOPMENT?

You'll be pitting you wits against...

peppermint
Harbottle & Lewis
JAGEX avatar
rocksteady

Previous sponsors include...
PREMIER

For sponsorship opportunities contact:
alex.boucher@intentmedia.co.uk or call +44 (0)1992 535647

September 2010 winners:
BLITZ GAME STUDIOS

If you are really clever you even get a mugshot in the mag

May 11th 2011 winners:
STILL ALL TO PLAY FOR

Date: Wednesday May 11th
Venue: Sway Bar, Holborn, London

To book your place please contact:
kathryn.humphrey@intentmedia.co.uk
or call +44 (0)1992 535647

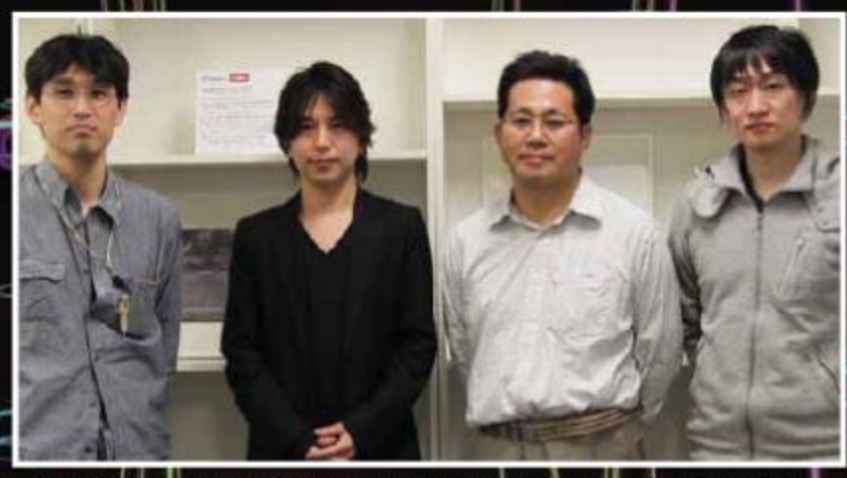
£2K AD CREDIT

1st Prize Trophy
+ £2000 ad credit in Develop, Champagne* and Glory

2nd Prize Lunch & interview with the Develop team + Champagne*

Third Prize
Champagne*

* bottle of champagne for each member of the 1st, 2nd and 3rd placed teams



The El Shaddai key leads, from left to right: Keisuke Shimoda (motion technical artist), Kashow Oda (senior producer), Naruto Nishizawa (technical lead programmer), and Akihito Miyake (combat gameplay director)

ANIMATING EL SHADDAI

Naruto Nishizawa, Ignition Entertainment's technical lead programmer, explains how the team used NaturalMotion's Morpheme to craft superior in-game characters in their new title, El Shaddai: Ascension of the Metatron…

In the early stages of the development of *El Shaddai*, director Sawaki Takeyasu made clear his stance that the game would be released when the PS3 and Xbox 360 consoles had reached a suitable maturity.

"I want to make this game worthy of that period and stand out from its peers," said Takeyasu, before outlining an important focus of the game's development effort.

"One of the most important elements will be to make sure characters are animated fluidly."

Meanwhile, lead character animator Akihito Miyake had an idea that would change the game's character animation into something that the team believed no action game had ever seen before.

That idea was to evolve from the kind of standard character animation used in action games, where fixed motions just play in succession, into a more varied kind of animation where multiple motions are blended together.

For instance, adding change to the animation depending on a character's remaining health, or synthesising panting motions when a character gets tired. Change could also be added to the animation based on the weight of the weapon a character is holding. If a character is carrying a heavy weapon, the position of their hands may be lower and their movements slower.

We carried out research on how to fulfil these demands, and found that NaturalMotion's Morpheme is the best animation engine for this purpose, so we decided to use it.

THE PARADOX VIEW

During development, Miyake frequently stated that character feel is one of the most vital elements of an action game. Players need to control characters intuitively to be able to experience a sense of unity with those characters in the game, emphasising the feeling of immersion in the game.

> ***"Simply having natural movement isn't fun. We needed stylised movements that only games can provide; having the hero face off against an enemy and unleash a flurry of punches."***

For action games, it is crucial for a player's commands to be reflected in the game instantly. When a player presses a button, they want the next frame to show the results of their actions.

Simply having natural movement isn't any fun. We needed stylised movements that only games can provide. For instance, when having the hero face off against an enemy and unleash a flurry of punches.

Although Morpheme had been used in a number of titles with realistic animation, our goal was to achieve hyper-real stylised animation, and that had its own set of challenges.

A SENSE OF STYLE

We began by creating a detailed animation network that would allow us to chain together combinations of attacks and fluid locomotion. Morpheme allows animations to be tagged with event metadata at different points in the animation cycles. We used this to mark points where one animation could seamlessly transition to another animation. These events were what drove the state machines within the network, allowing us to build complex chains of combos whilst being able to transition back to normal locomotion.

We needed to author a lot of this metadata on our animations, and while Morpheme provided tools for automatically adding events for common motions an animation, this didn't go far enough for our use case. However, Morpheme's data is stored in a format that is extremely easy to use and modify with external tools. We were able to create our own in-game tools for marking up our animations with the correct event data to obtain the right character feel.

Having got the fluidity of motion correct, it was also important to keep the character fun to play. To this end, it was essential that the character should respond rapidly to a player's desires.

INSTANT RESULTS

To improve network responsiveness, we worked with NaturalMotion to develop instantaneous transitions and breakout transitions. Instantaneous transitions don't do any blending between the source and destination states; they simply switch from one state to another.

This functionality already existed within the Morpheme runtime code with a node that could simply switch between inputs. However, re-implementing this as a zero length transition improved authoring options because it could be treated like any other transition within a state machine.

Using transitions in this way provides immediate response to user input, but requires the source and destination states to be well matched to avoid a visible pop when swapping states. Because we had already authored the exit and entry points of animations using events, we could transition instantaneously, secure in the knowledge that the end point of the source animation

would match perfectly with the start point of the destination animation.

Morpheme state machines store an internal list of possible exits from the current state. Transitions count as a state in this case because the state machine can have a transition active for several frames. To implement the immediate transitions, it was simply a case of making the destination state a direct exit from the source state. Now, rather than the source going through the intermediate transition for a few frames, it can just jump straight to the destination.

NEST TOGETHER

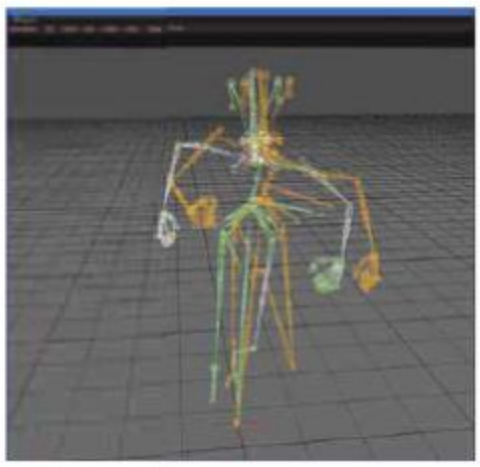
Another potential way that responsiveness can be lost is if you want to transition while a transition is already active. This can be achieved by nesting one state machine inside another, allowing the higher state machine to override what is happening in the lower state machine.

Again, however, this could make authoring the network difficult. To alleviate this problem, Ignition's chosen solution made it possible to flag a transition as a breakout transition. This transition was special because it would allow transitions from the destination state to become active before the transition had fully completed.

To get the breakout transitions to work, there was a similar change to the possible exits from a given state. In this case, when a breakout transition was active, the list of possible exits from the transition was modified to include all the transitions from the destination states.

NaturalMotion has always made its best efforts to respond to our requests. Thanks to that, *El Shaddai* has been able to realise the right action game feel and the beauty of the blending inherent in Morpheme. We hope you'll be able to appreciate this by playing our game.

www.elshaddaigame.com



Ignition created its own tool to make use of Morpheme's extensive metadata

New action game El Shaddai is designed to stand out from the crowd of late generation titles with its striking visuals

PitbullStudio

CHARACTER ASSET CREATION

Hi-Res Sculpting | Game Resolution modeling | Texture creation
Skinning & Rigging | Morph target creation | Animation

Our team can take your characters through the full development cycle, from concept to complete production-ready assets. We can deliver to your desired target, should that be a high resolution cinematic or optimised game resolution models.

UNREAL TECHNOLOGY

unity

OUTSOURCE CODE SOLUTIONS

Unreal | Unity | PhysX | Havok | Scaleform | FMod | Bink | ...
Console | Mobile | PC

We have a large team of coders available at short notice to work on projects large and small - whether on short-term contracts or long. We are currently working with several top-tier studios and have the capacity to handle multiple projects.

Through efficient working practices we can deliver quality solutions in a timely and effective manner.

We are recruiting!

Character | Environment | Concept Artists & Designers
Graphics | Engine | Tools Programmers

www.pitbullstudio.co.uk info@pitbullstudio.co.uk

Unreal, the circle-U logo and the Unreal Technology logo are either registered trademarks or trademarks of Epic Games, Inc in the United States and/or other countries. Unity and the Unity Logo are trademarks of Unity Technologies. Big Top characters are copyright Lambs Alive Limited.

EPIC DIARIES

An analysis of Stan Lee and Vicon House of Moves' use of UE3

ENTERTAINMENT LEGEND Stan Lee and Vicon House of Moves (HOM) recently enlisted Unreal Engine 3 to create Lee's new franchise *The Guardian Project*.

In collaboration with the National Hockey League, the major professional ice hockey league in Canada and the US, Lee and HOM crafted the world of the Guardians. This world comprises 30 hockey-based superheroes that made their debut at the 58th Annual NHL All-Star Game, an annual exhibition of the league's star players. The Guardians' first appearance came in the form of a short film that kicked off a media blitz that is slated to include an online video game, a computer-animated TV show and a slew of merchandising.

House of Moves headed up development of *The Guardians*, relying heavily on performance-capture technology to create realistic characters that would work across a range of media for television and online broadcast, stadium displays and virtual reality experiences.

The Guardian Project features 30 Unreal-made hockey-inspired superheroes

EASY DOES IT

"We chose Unreal for its ease of use," explains Peter Krygowski, director at HOM. "The learning curve to ramp up production and fit it into our pipeline was minimal."

Ease of use was particularly important to HOM since it's primarily a motion capture and animation shop, without a huge infrastructure for handling the rendering requirements for traditional high-end output.

Fortunately, Krygowski has been close to the video game world for more than a decade, has plenty of experience with a number of proprietary engines and knew exactly what his team needed to successfully pull off *The Guardian Project*.

In short UE3 delivered the flexibility the team was looking for.

"We wrote several pieces of code to help generate custom shaders and to be able to bring virtual cameras into and out of the Unreal Engine for the purposes of this project," reveals Alberto Menache, HOM's visual effects supervisor and pipeline developer. "As a result, we had incredible creative flexibility, and could render out 8,000 frames in a matter of seconds – not to mention the savings in gear costs without the need for a multi-CPU render farm."

CG assets for the short film were built using Autodesk Maya and Pixologic ZBrush, with Autodesk's MotionBuilder brought in to retarget animation and navigate environments during all the motion capture sessions.

HOM captured stunts and poses for each of the 30 Guardian superheroes at their 26,000 square feet of motion-capture stages, outfitted with more than 200 Vicon T160 cameras over nine days of mo-cap shooting. The project was completed over six months with a creative team that started at 10 and grew to 200 at the project's peak.

> ***"By building in a game engine from the start, our options are just much broader. We can extrapolate characters into a television series."***

LAYING EMPHASIS

"I can't emphasise enough what an impact Unreal had on this project," says Krygowski. "The real-time lighting, ease of use, ability to iterate quickly, and near-time rendering of final assets allowed us to accelerate an already compressed delivery schedule. For the short film, we needed to deliver a three-and-a-half minute animation short in two and a half months, from start to finish. It's a project that would normally have taken six months."

The Guardian Project brought some unexpected drama, in addition to the punishing timeline. Just 48 hours before the film was set to premiere at the NHL All-Star Game, an outside vendor delivered six shots that didn't fit with the video. But using Unreal, HOM was able to revise, reanimate, and re-render the shots. The team made the changes, passed them through Unreal, and composited the final animation in time for the final piece. According to Krygowski, without Unreal this wouldn't have been an option.

Krygowski says he expects more Hollywood productions to build Unreal into their pipelines, since it allows for collapsed production time when necessary, while still allowing for robust iteration. Plus, with Unreal the assets are more easily shared between different mediums, from games to broadcast.

According to Brian Rausch, HOM's vice president of production, "you have to think down the road of the possibility of extrapolating characters and environments into game assets, or a television series, making sure you can easily flow the CG creative elements between mediums. By building scenes in a game engine from the start, our options are just much broader."

UPCOMING EPIC ATTENDED EVENTS:

E3 Expo
Los Angeles, US
June 7th -9th, 2011

Casual Connect
Seattle, US
July 19th -21st, 2011

Comic-Con International
San Diego, US
July 21st -24th, 2011

Please email: ***mrein@epicgames.com*** *for appointments.*

To discuss anything raised in this column or general licensing opportunities for Epic Games' *Unreal* engine, contact: **mrein@epicgames.com**

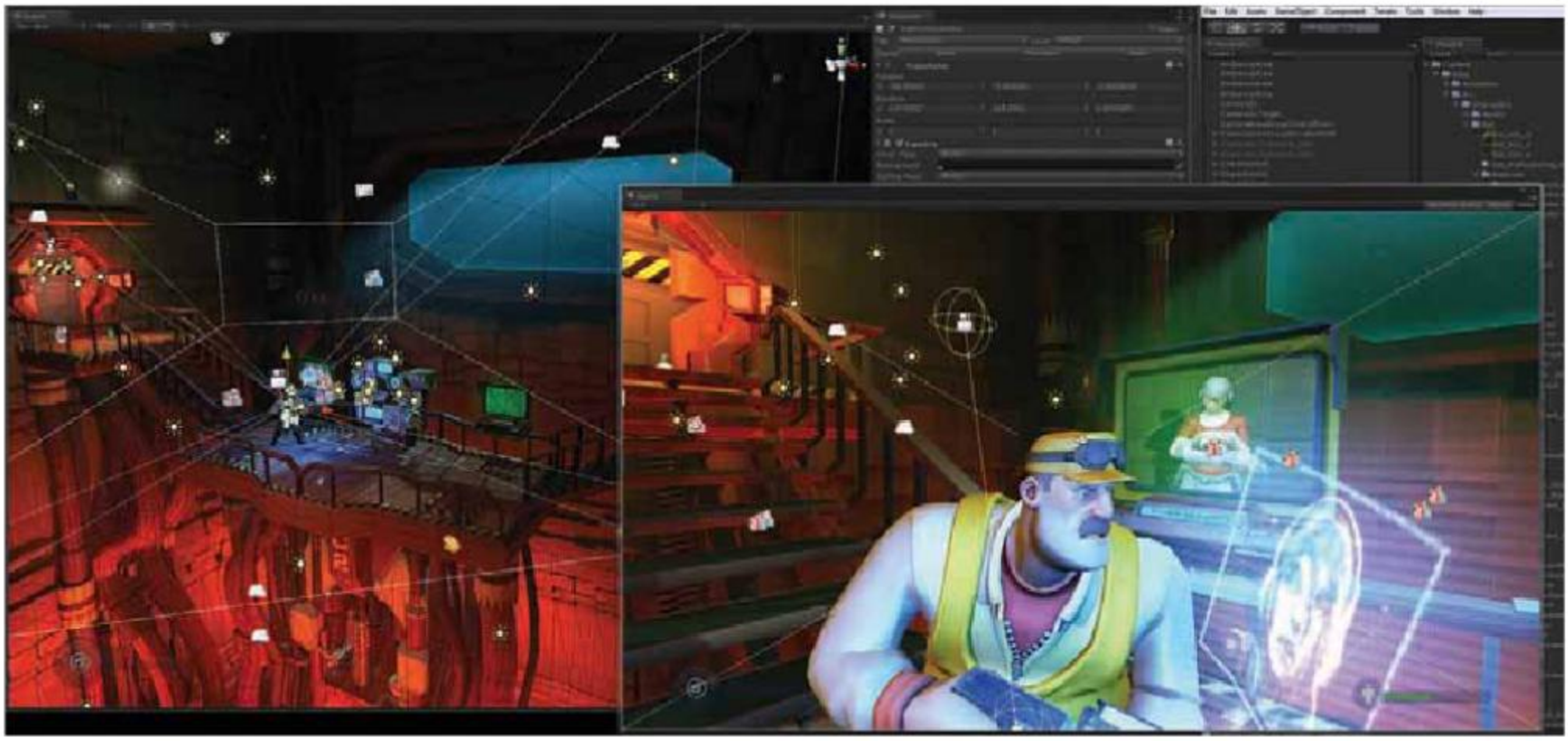
FOR RECRUITMENT OPPORTUNITIES PLEASE VISIT:
www.epicgames.com/epic_jobs.html

Canadian-born **Mark Rein** is vice president and co-founder of Epic Games based in Cary, North Carolina. Epic's Unreal Engine 3 has won *Game Developer* magazine's Best Engine Front Line Award four times along with entry into the Hall of Fame. UE3 has won three consecutive Develop Industry Excellence Awards. Epic is the creator of mega-hit *Unreal* series of games and the blockbuster *Gears of War* franchise. Follow @MarkRein on Twitter.

UNITY FOCUS

Will Freeman turns his eye to the first PSN game made using Unity

ROCHARD
Developer: Recoil Games
Platforms: PlayStation 3
What is it: Platformer/shooter for PSN



Rochard is due on PlayStation Network soon

WHEN THE team at Finnish studio Recoil Games began work on its platforming shooter *Rochard*, the development staff were focused on ideas. So much so, in fact, that they hadn't decided on the platform the game was for.

It was in that context that the Helsinki-based outfit adopted Unity. Recoil knew Unity's reputation as a rapid prototyping tool, and opted to use the engine.

Little did they know they'd go on to become the first company to create a commercial PSN game using Unity's ever popular toolset…

"The speed at which you can prototype with Unity 3D is something that really surpassed even our expectations," admits Rochard's producer Kalle Kaivola. "We were able to create a concept, prototype it and put together a polished ten-minute demo for publishers from scratch in two months. And, mind you, this is with a team where nobody had touched the software before."

Before long, Kaivola and his colleagues found themselves confident enough with Unity to set their sights on Sony's digital platform, and began work on the full version of the release.

CUSTOMISED SATISFACTION

Emboldened by the power of Unity's editor, Recoil – which never planned on building a library of custom tools – eventually used the engine to do just that. Having evaluated the manpower needs of their team's various departments, the Recoil Games staff went to work constructing their own tool sets.

"Rolling out very specific tools turned out to be a huge timesaver that gave us a chance to polish the levels while working with an aggressive schedule," confirms Kaivola.

> ***"We were able to create a concept, prototype it and put together a polished demo from scratch in two months."***
>
> Kalle Kaivola, Recoil Games

"We also have to give credit to the Beast light-mapping solution that made its way into Unity with the 3.0 release," adds the producer, who is clearly enamoured by Unity's offering. "We weren't expecting to be able to use it when we started out, but using it really helped us reach our visual quality bar."

Recoil also made much use of the ability to harness C# as a managed language on top of the runtime engine; a fact that meant the Rochard programmers, designers and artists could create components with the same language. The subsequent improvements to workflow were manifold, as a programmer could approach a given designer's machine, see his levelscript firsthand and submit any changes to either level-specific script or base classes from that very work station. "This was very useful for us and helped us break down some of our habits of segregating programming from design," reveals Kaivola.

MECHANIC MASTERS

Recoil was also keen to give *Rochard* a definite look and feel. The game, which combines traditional run 'n' gun action with a wealth of puzzle solving elements, is absolutely a celebration of the classic gameplay beloved by retro-fetishists, but the team were eager to focus on creating unique mechanics from *Rochard*'s combination of these familiar interactions. It was fundamentally important to make sure the game felt fresh and distinct. Fortunately for Recoil, Unity allowed them to do just that.

"We don't think it's the engine's place to give the feel or style to a game, but rather remove any limitations from creating your own," says Kaivola. "The way Unity is made into a very generic game engine allowed us to develop our signature look and mechanics.

"We didn't have to rip out the engine's guts to make the game stand out, so to speak. For example, Shaderlab allows you to create customised shaders suited for your graphics style by extending the stock rendering pipeline and not by forcing you to rewrite one."

Rochard is yet to ship, so Recoil's energy is absolutely focused on its debut released. Still, the team are already considering taking the IP to new platforms. Clearly they are very satisfied Unity customers.

"We've been happy with using Unity," concludes Kaivola. "I think you're onto something when people in the team are making hobby projects for fun in their spare time with the same engine."

www.recoilgames.com

HEARD ABOUT

John Broomhall turns his attention to integrating audio and UI

KINECT SPORTS
Developer: Rare Studios
Release Date: Out now
Platform: Xbox 360
www.xbox.com/KinectSports

AS HE started work for the now legendary Stamper brothers back in 1994, audio director and composer Robin Beanland may have looked forward expectantly to future hardware innovation in the years ahead. But I bet he didn't see Kinect for Xbox 360 coming.

Anyone who has nearly died laughing – breathless and exhausted – having spent an hour jumping around and waving at their telly knows Kinect can be big fun. Sleek and high-tech, it has become the fastest selling consumer electronics product in history.

But the prototype Beanland first encountered was not something you'd particularly want atop your posh flat-screen.

"In January 2009, like all very early prototypes, the Kinect sensor – or 'Project Natal' as it was then known – felt kind of knocked together," he reveals. "Plus there were niggles with the tracking software not seeing you properly or becoming confused if someone stood next to you. I was half-bemused, half-excited – and it seemed a tall order to get something going on it in time for launch. But with every iteration you could see it all crystallising towards its current impressive capability and good looks."

MAKING A KINECTION

Both Beanland and the game team soon realised that in the development of *Kinect Sports*, sound was going to be a hugely important tool in the title's game-play armoury. With no button-press feedback, sound would play a crucial role in notionally linking the player 'physically' to the onscreen action – wave your hand to hit a table tennis ball with a virtual bat, the exact sound and timing of its triggering is super-important to immerse and 'connect' you to the game.

"Other than visuals, the only feedback you've got to indicate you've made contact with the ball is audio," explains Beanland. "That meant we needed to give the gameplay software guys sound assets to work with very early in development so they could tweak/iterate until the game felt right. Then we started looking at discreet sub-woofer effects to link you with the action and immerse you further. Like in the footy, for example. If you hoof the ball or the ball 'hits' you, we'll trigger an LFE specific effect – something you feel."

> ***"We needed to give the gameplay software guys sound assets very early in development so they could tweak/iterate until the game felt right."***
>
> Robin Beanland, Rare

Menu sounds required careful thought, too. When the player makes a selection, they have to hold their hand in the correct position long enough for the game to realise their intention and then provide confirmation. Audio is an important part of the feedback – both the build-up and conclusion sounds. Getting it right entailed numerous iterations involving testing aplenty to continuously judge intuitiveness and usability for the casual player.

"Our aim was to make players feel like they are really immersed. The overall tone was for everything to be positive and family-friendly. So rather than nasty booing if you miss, you'll hear a groan of empathetic disappointment followed by shouts of encouragement."

COUNTER STRIKE

"Say if you're bowling, the first time you get a strike, the crowd obviously reacts with cheering. As you go for your second attempt they'll then anticipate it with a build-up – a rising 'oooooohhhhhhh'. If you fail, they'll go 'awwwwhhhhhh', then cheer you, and the excitement level will crank up another notch. We have crowd beds – different intensities on a slider allowing us to go up and down seamlessly."

Two other audio factors serve to spice up the experience. First is famed *X Factor* voice over artist Peter Dickson adding some serious pizzazz as the main host. And secondly, there's an interesting and succinct use of licensed music.

"We have around 30 licensed tracks interpolated throughout *Kinect Sports*, but we only use short 15-to-30 second stings from them," confirms Beanland. "These are thrown in when you do something special, like scoring a goal in football or serving an ace in table tennis. We tried this early on and it really seemed to hit the nail on the head. Being rewarded with a section from 'Good Times' by Chic or 'Can't Touch This' by MC Hammer puts a smile on your face."

Meanwhile, *Kinect Sports'* audio is powered by Wwise technology, as Beanland explains: "We changed from Xact for this project. We like the Wwise interactive music functionality and the real-time parameter stuff puts a lot of control back in our sound designers' hands as opposed to having to rely on a software guy. That's what we like."

John Broomhall is an independent Audio Director, Consultant & Content Provider.
E: develop@johnbroomhall.co.uk
www.johnbroomhall.co.uk

Robin Beanland's audio work strived to make Kinect Sports an inclusive experience for gamers

Elementary Design

In the first of a number of extracts from books that are essential reading for game developers of every level, here we publish an excerpt from **Michael Moore's** Basics of Game Design...

Michael Moore (above) penned Basics of Game Design to help those looking to become a professional game designer

TOO OFTEN, a novice designer spends more time in design documents on story development rather than on how things will actually work in the game world. How the elements of gameplay hang together is assumed instead of discussed.

So, the novice designer might simply mention in passing that there is a combat system without explaining exactly how it works. This approach leaves the burden of actual design to the programming staff, and the final product may wind up completely different from what the designer originally had in mind.

On the other hand, experienced designers can get so wrapped up in the minutia of how things work they wind up handcuffing the programming team, who may have some very good ideas on how things should work in the game. An initial game design document that is too detailed can be tiresome to read, and much of its contents is likely to change during production. As work continues on the project, the design document can and should be modified to accommodate changes to actual gameplay.

GAMEPLAY AND THE FUN FACTOR

When starting work on a game, the most important question the designer should ask is: 'What will the player do during the game that is 'fun'?' Obviously, customers buy a game because they feel it will keep them busy and make them happy for a time. There are actions the player performs that are fun, and these are the actions the player wants to do most often. Other actions are not as much fun, but they are necessary as precursors to the fun actions. Some of the 'fun' actions in games are:

- Exploring unknown areas
- Resolving combat situations
- Finding treasures
- Building things
- Destroying things
- Interacting with characters in the game world
- Living through a story
- Solving puzzles
- Manipulating resources
- Piloting aircraft
- Driving fast moving cars
- Playing a sport

The other actions that are less fun are often needed to prepare for a fun action. The player is willing to perform these actions in anticipation that they will lead to later, more interesting, more enjoyable actions. Some of these less interesting actions include:

- Inventory management
- Buying and selling game objects
- Bookkeeping
- Retracing one's steps through previously explored areas
- Managing a sports team with trades and salary negotiations.
- Reloading a saved game
- Breaking out the manual to look for an obscure control input

The designer, of course, wants to maximise the fun factor time and minimise the drudgery for players. It is not possible to make everything fun all the time. Many complex games have a steep learning curve where players have to learn all the interactions in the game and the control scheme for each one. In such cases, it is often best to teach players a few lessons at a time in a tutorial system that extends over several hours of play.

ASSIGNING PERCENTAGES TO GAMEPLAY

When mulling over a design concept, the designer should consider how much time the player will devote to the various play elements. One approach is to assign percentages to the amount of time a player is expected to spend in each section of the game. For example, a typical role-playing game has these play elements:

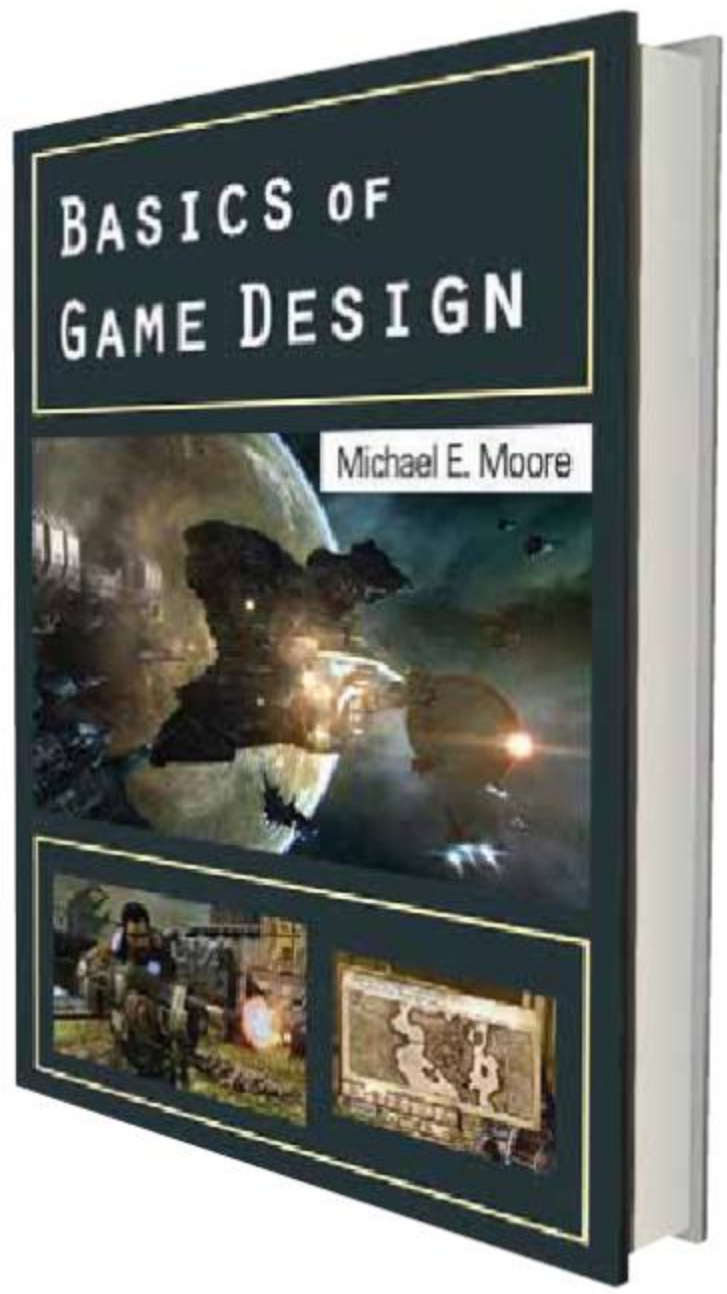
- Combat
- Exploration
- Interacting with non-player characters (NPCs)
- Storytelling
- Puzzle-solving
- Inventory management
- Buying/selling game objects

At first glance, the designer might decide that combat is the most important element in the game and assign it the highest percentage of play time. It can be difficult to assign values to all the play actions, but here is what the breakdown for a role-playing game (RPG) might look like:

- Exploration – 60 per cent
- Combat – 15 per cent
- Interacting with non-player characters (NPCs) –10 per cent
- Puzzle-solving – Five per cent
- Storytelling – Five per cent
- Inventory management - Three per cent
- Buying/selling game objects – Two per cent

It might seem surprising that combat is not higher, but if you study the play elements in an RPG, you will quickly find that most of your time is spent travelling across large areas or exploring cities. If you want to bump up the per centage devoted to combat to 25 per cent, you'll have to reduce the amount of time exploring, get rid of the puzzles, or limit the storytelling.

The result could be a 'dungeon crawl' in which there are many more enemies to engage in combat and the maps are typically much smaller in size. Indeed, a designer might find that too much combat is bad because it becomes repetitive and predictable.



CRC Press publishes a wealth of books on game development covering a broad range of topics from AI to physics. Its library of titles offers something for those at every experience level. **www.crcpress.com**

DEAD END THRILLS

In his monthly dev artistry snapshot **Duncan Harris** captures MotorStorm: Apocalypse...

MotorStorm: Apocalypse

Developer: Evolution Studios
Publisher: SCEE
Released: 2011
Capture format: PS3

Never let it be said that they don't make 'em like they used to. Channelling its ancestor Psygnosis in the days before it seeded much of SCEE, Evolution Studios has made a very arty and often idealistic racer in *MotorStorm*, which literally breaks ground in bonkers threequel *MotorStorm: Apocalypse*.

Taking its cues from Roland Emmerich's disaster opus *2012*, the game sees the MotorStorm Festival take its Gumball antics to the ultimate extreme, parking an aircraft carrier off the shore of a city being demolished by natural disasters. You'll recognise many of its trackside moments from the movie: a train rumbling pell-mell off a broken overhead line, skyscrapers propping each other up and showering glass, and the climactic sight of the Earth's mantle cracking open, shrugging racers and residents into a fiery abyss.

Chaos of the kind that makes new and unexpected crashes every ten seconds is not fashionable in games, especially the ever-technical racer. Slow to a crawl in *Apocalypse* and its AI logic seems anything but, its strange behaviour making every second of the race spectacular, even if the results at the finish line are unfair. Gamers like to win; *MotorStorm* proffers something better: a brilliant snub that reminds us of a time before studios and QA committees, when an artist's vision could ride roughshod over a player's sensibilities.

Tools and tricks for this screenshot: an in-game Photo Mode which shares the wonderfully misleading render quality of another recent Sony game, *Gran Turismo 5*.
www.deadendthrills.com

Dead End Thrills is a website and resource dedicated to the art of videogames. Its galleries feature over 5,500 bespoke screenshots which are free to download and use.

MONETISINGMOBILE

Exploring opportunities in Mobile Payments

For Monetising Mobile updates visit www.mobile-ent.biz

Wednesday, May 25th • BAFTA, 195 Piccadilly, London

Conference and Networking Buffet at £229

OpenMarket
Exclusive Platinum Partner

InMobi
Premium Gold Partner

MACH
YOUR MOBILE VISION. REALIZED.
Gold Partner

VISA
Gold Partner

TPAYMOBILE
On Device Licensing & Payment Platform
Gold Partner

bango
Silver Partner

AppSnips
monetize your app, maximize your reach
Silver Partner

For information on delegate bookings and sponsorship contact:
Katy Grant on 01992 535647 or email katy.grant@intentmedia.co.uk

An ME Event

me
mobileentertainment

MONETISING MOBILE SPEAKERS:

AMANDA ROSENBERG
associate business development manager, Google Mobile EMEA

FERGAL WALKER
head of mobile partnerships, Facebook EMEA

JAMES DAVLOUROS
VP of business discovery, Mastercard

JAMES PATMORE
MD of EMEA, Boku

JOHN CONLON
head of mobile marketing, Barclaycard

ANIL MALHOTRA
VP of alliances, Bango

ALEX MOIR
general manager of Europe, OpenMarket

ROB JONAS
MD EMEA, InMobi

CHARLES DAMEN
VP of business development, Mach

MARY CAROL HARRIS
VP of innovation and new product, Visa Europe Mobile

DIRECTORY

The world's premier listing of games development studios, tools, outsourcing specialists, services and courses...

STUDIOS: Hiring continues at Pitbull Studio
p66

TOOLS: Adobe's Creative Suite 5.5 is released
p68

SERVICES: Sergio Pimentel joins Nimrod Productions
p69

KEY CONTACTS

STUDIOS

Amiqus	01925 252 588
Codeplay	0131 466 0503
Epic Games	+1 919 870 1516
IndieCity	01926 880 081

TOOLS

BigWorld	+15122890145
Fork Particle	1(925) 417 1785

SERVICES

Atomhawk	+44 (0) 191 490 9160
inComm	+44 (0) 1489 556 700
Partnertrans	+44 (0)1273 229 030

COURSES

University of Hull	+44 (0) 1482 465 951

develop DIRECTORY

GREAT ADVERTISING OPPORTUNITIES

RATES
1/4 page: £450 (or £200/month if booked for a minimum of six months)

Contact:
Alex.Boucher@intentmedia.co.uk

T: 01992 535 647

EPIC GAMES
Epic Games is hiring for positions in production, engineering, art and design.
Visit www.epicgames.com/jobs
CHAIR
EPIC GAMES
PEOPLE CAN FLY
UTAH
NORTH CAROLINA
WARSAW
© 2010, Epic Games, Inc. Epic, Epic Games, the Epic Games logo, the Chair Entertainment logo and the People Can Fly logo are trademarks or registered trademarks of Epic Games, Inc. in the United States of America and elsewhere.

PERSONNEL

This month: Playground Games, Pitbull, RockYou and November Software

UK-based studio **Playground Games** has hired two new staff in what is so far proving a succesful year of expansion for the studio.

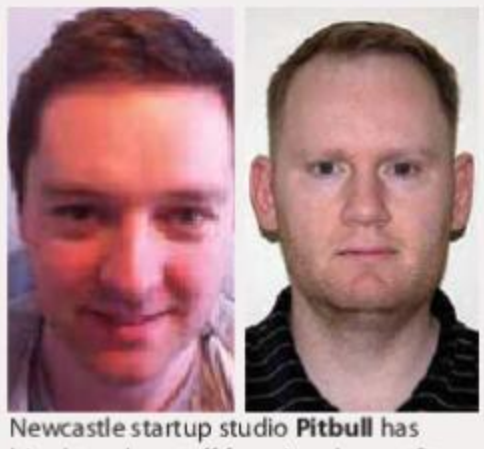
Andrew Sage (above left) and Rob Pattenden (above right) have been hired from Codemasters, where Sage worked as principal programmer and Pattenden in physics and audio programming.

"Hiring Andy has been a real coup for us," said Playground technical director Alan Roberts.

"He really is widely admired in the industry and has the talent to make all the difference to a project."

"Rob is also a fantastic addition to our team. His deep understanding of vehicle dynamics will be a great asset to us."

www.playground-games.com



Newcastle startup studio **Pitbull** has hired two key staff from London outfit Slightly Mad Studios.

Chris Wood (above right) and Andrew Brown (above left), two coders with 17 years of experience between them, have joined Pitbull after their work developing the EA game *Shift 2 Unleashed*.

Wood started his career at the original Pitbull studio before moving to Slightly Mad Studios.

Brown has nine years of experience in development, and has also moved back to Pitbull from Slightly Mad.

"The addition of Chris and Andrew to our team really cements our status as a leading games development studio," said Pitbull founder Robert Troughton.

www.pitbullstudio.co.uk

RockYou, the US social games studio behind Zoo World and Gourmet Ranch, has named Lisa Marino as the new company CEO by its board of directors.

Marino, who previously worked as COO, had been the de-facto head of the company for some time, and was chosen for her new position after overseeing a restructuring that saw RockYou's main business focus change to video games.

"Over the last three years, Lisa has demonstrated her strong leadership, building RockYou's brand business and later leading its award-winning advertising business as the company's CRO," said RockYou chief financial officer Steve Van Horne.

"She helped put RockYou on the map."

www.rockyou.com

Former EA Tiburon staff and members of the team behind LucasArts' *The Force Unleashed* series have announced the formation of San Francisco-based studio **November Software**.

The new studio will focus on the development of streaming 3D content and social games for mobile platforms. Its first title – *Inemari: A Familiar World* – will be a social games title with 3D content for the web and iOS.

"We are gamers and we want to take what we know and love about next-gen games: the deep immersion, multi-layered skill based mechanics, and bring them into the casual social gaming world," said November Software co-founder Szymon Swistun.

www.inemari.com

Amiqus 01925 252588 www.amiqus.com

amiqus
We Know Your World

Amiqus is a leading provider of specialist talent to the video games industry.

We recruit for some of the world's premier studios and publishers across all industry disciplines. Since we started in 2002 we now work with clients in 13 countries across the globe.

Let us show you how we know your world. Call:

01925 252588

or visit:

amiqus.com

Codeplay 0131 466 0503 www.codeplay.com

STUDIO SPOTLIGHT

This month: Ideaworks

Contact
31 St Petersburgh Place
London
W2 4LA

P: +44(0)8456 434 969
F: +44(0)8456 434 970
W: *www.ideaworks3d.com*

Formed back in 1998 as Ideaworks3D, London-based **Ideaworks** has built a reputation for developing and porting innovative games for big-name franchises onto smartphones and handheld platforms. An early example of the work for which the studio would later become highly regarded was the porting of the PSone version of *Tomb Raider* to the Compaq iPaq and later Nokia N-Gage.

The latter handheld proved to be a productive platform for Ideaworks, the studio had four launch titles for the console and developed a further ten titles for it over the course of its two generations to 2008.

It wasn't until 2005 that a dedicated games team was established at the studio, staffed by industry professionals with backgrounds in both PC and console development and with the mission statement of bringing triple-A C++ titles to mobile platforms. A large amount of mobile content, both original to the studio and franchised IP, has since been developed by the team. Mobile versions of *Need for Speed Most Wanted*, *Metal Gear Solid*, *Resident Evil*, *Trivial Pursuit* and the acclaimed *Call of Duty: World at War: Zombies* cemented the studio's reputation for delivering high-end versions of console products on mobile platforms. This wealth of high-quality content has also seen the studio rack up an impressive array of awards, including a Mobile Entertainment Award for Best Game Developer and a Develop Industry Excellence Award for Best Mobile Studio, both in 2008.

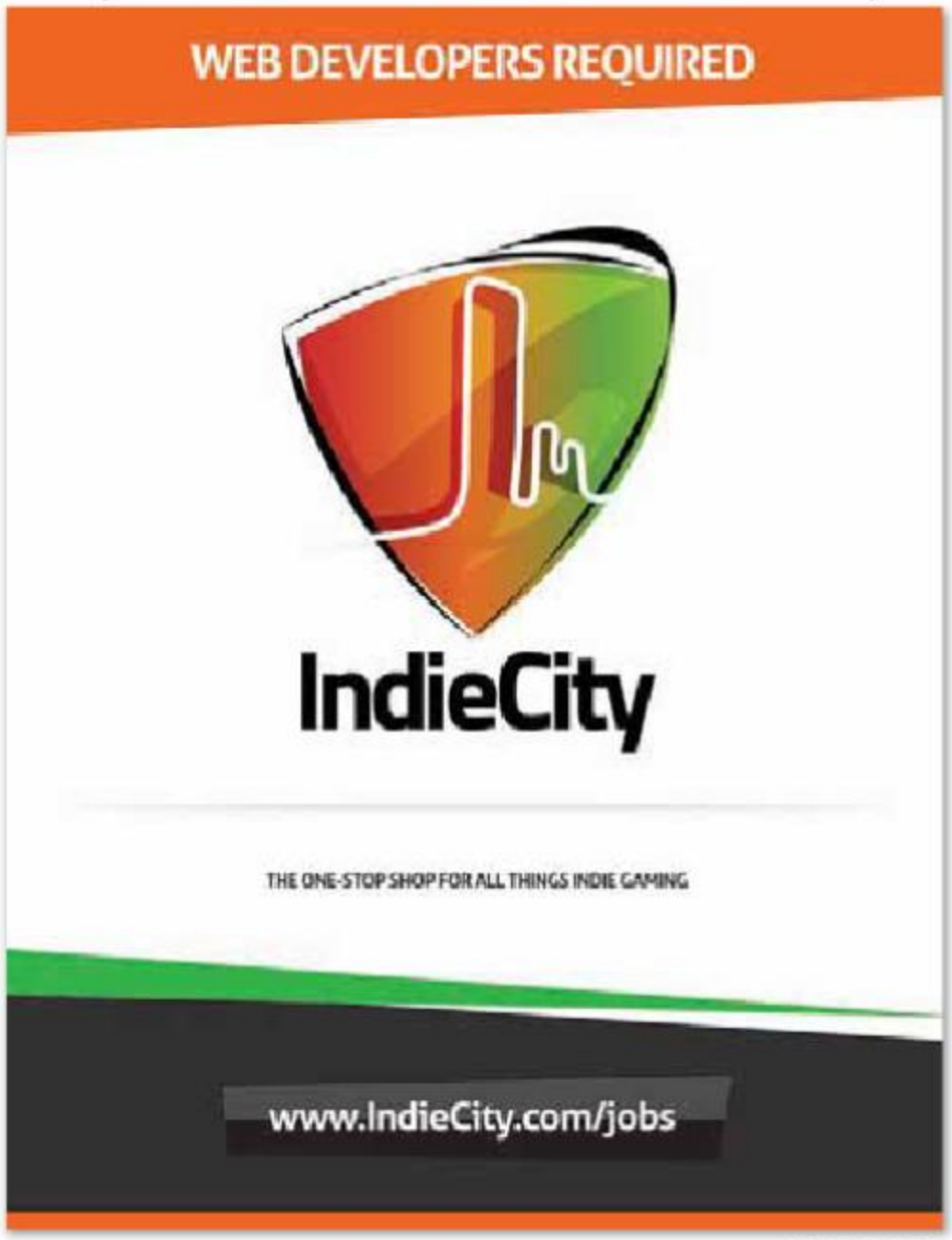
In 2009 Ideaworks restructured into two separate organisations, Ideaworks Game Studio and Ideaworks Labs. The former continued to develop games for smartphones and the iPhone, but with a new remit looking to take in development for other handheld and console platforms. The latter looks towards multi-platform technology development, and released the Airplay SDK to that end, a development environment supporting iOS, Android, Symbian, bada, Windows Mobile, webOS and Maemo.

With the recent release of *Fable III Coin Golf* for the Windows Phone 7, Ideaworks has maintained the impressive momentum that it has built up over the past thirteen years. Considering the continuing pace and level of quality the company works to, the coming years have a distinctly interesting potential for the Ideaworks firms.

www.ideaworks3d.com

Epic	+1-919-870-1516	www.epicgames.com	IndieCity	01926 880081	www.IndieCity.com

EPIC
GAMES
Epic Games is hiring for positions in production, engineering, art and design.
Visit www.epicgames.com/jobs
CHAIR
EPIC GAMES
PEOPLE CAN FLY
UTAH
NORTH CAROLINA
WARSAW
© 2010. Epic Games, Inc. Epic, Epic Games, the Epic Games logo, the Chair Entertainment logo and the People Can Fly logo are trademarks or registered trademarks of Epic Games, Inc. in the United States of America and elsewhere.



TOOLS NEWS

This month: Adobe, Kalypso, Codeplay and FXpansion

Adobe Systems has today launched its new Creative Suite 5.5 product line. The updated package brings numerous enhancements across all Adobe tools.

"Key innovations include substantive HTML5 advancements in Dreamweaver, new tablet and smartphone application development capabilities in Flash Professional and Flash Builder Premium," the company said.

Enhanced cross-browser testing, as well as mobile emulation and on-device debugging, is promised to work across the new suite of tools.

Adobe says its customers can deliver "high-impact content experiences and mobile apps to the latest form factors across Android, BlackBerry Tablet OS and iOS platforms."

The firm's tagline for Creative Suite 5.5 is that the tools have been built to work on "any screen", from tablets to smartphones and desktops.

www.adobe.com

Germany-based publisher and developer **Kalypso Media** has licensed Trinigy's latest Vision Engine iteration for several upcoming games.

The first of the named titles that will make use of the newly-licensed product will be *The Dark Eye: Demonicon*, the latest installment in an RPG series, to be released for Xbox 360 and PC next year.

"Trinigy and the Vision Game Engine gave us a single development platform with a strong feature set capable of achieving our exacting graphic and gameplay goals, optimised performance across a range of platforms and extremely responsive support," said Kalypso MD Stefan Marcinek.

"Just as importantly, the Vision Engine doesn't tie us to a specific workflow – it is so flexible, we can adapt it to our development process with our own internal tools, not matter what platform or genre we are developing for."

www.kalypsomedia.com

Edinburgh-based tech company **Codeplay** has launched Offload 2.0, the latest iteration of its game acceleration and optimisation dev technology.

Codeplay has said that the new toolkit allows the full exploitation of the PS3, and 'high quality and performance' on other platforms.

"Codeplay's mission over the last five years has been to address the technical challenges of game production. Working closely with game developers, we have developed supporting technologies that can work with developers' complex code and streamline cross-platform development," said Codeplay founder and MD Andrew Richards.

"For developers and publishers the benefits are clear – shortened game development times, reduced need for late stage optimisation, and the ability to easily manage existing game code over multiple platforms."

www.codeplay.com

FXpansion, a London-based indie music software firm, has become the latest member of the UK games industry trade association Tiga.

The company is best known within the industry for software like BFD and BFD 2, as well as the 2009 DCAM: Synth Squad synthesiser kit.

"Tiga has a reputation within the industry as an influential advocate," said FXpansion MD Angus Hewlett.

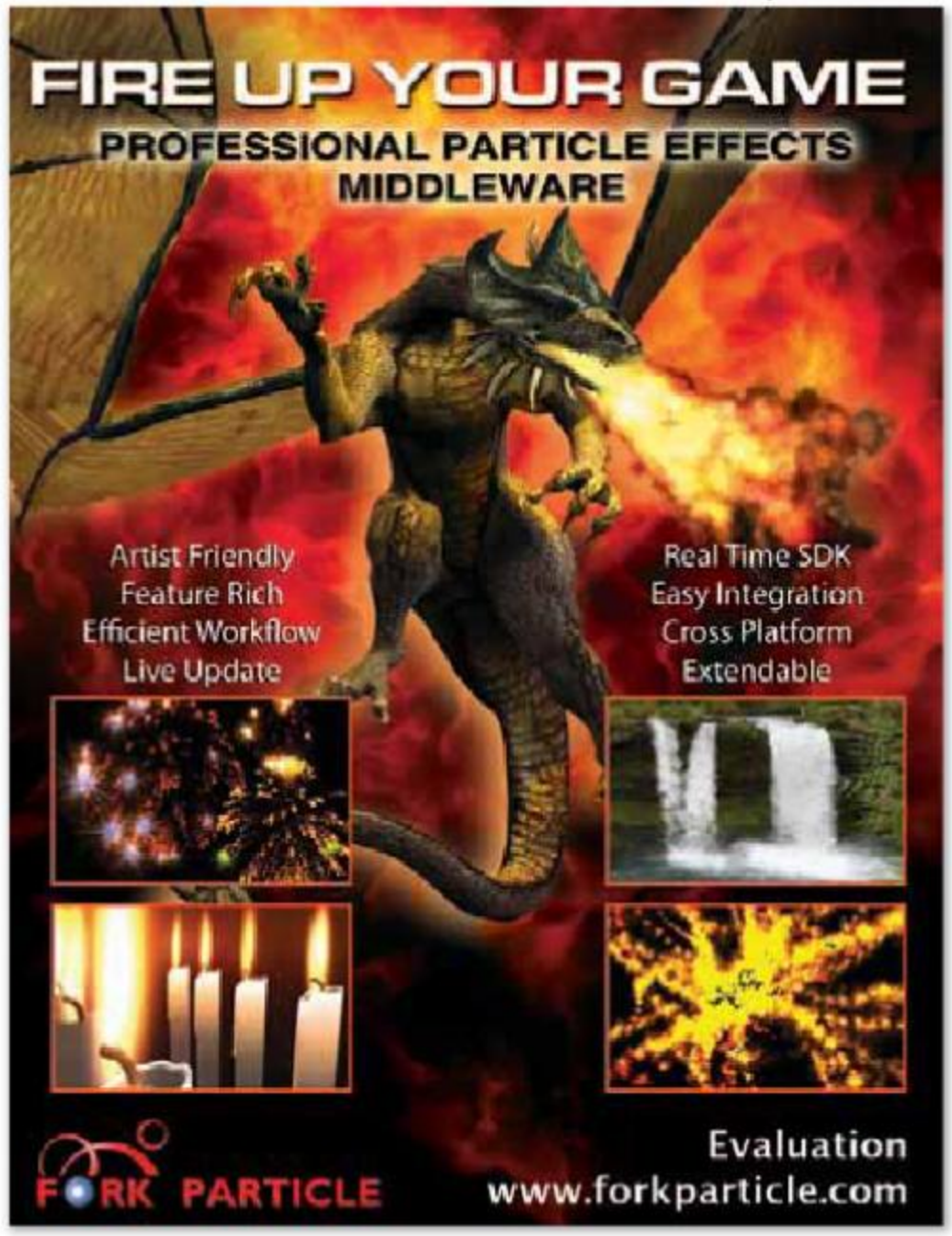
"Their political efforts regarding Games Tax Relief and R&D tax credits have been particularly impressive and we are keen get involved and provide an additional perspective to help shape Tiga's proposals.

"Furthermore, many of Tiga's members are users of our software so FXpansion's membership will provide a valuable and direct opportunity to communicate with these organisations and individuals and get our message out within the industry."

www.fxpansion.com

BigWorld +15122890145 www.bigworldtech.com

Fork Particle 1(925) 417 1785 www.forkparticle.com



SERVICES NEWS

This month: Nimrod, Eurocom, Side and Comcept

Audio production house **Nimrod** has hired licensing veteran Sergio Pimentel.

The industry stalwart, who previously established the music licensing department at SCEE, joins the company as director of music and licensing.

Pimentel brings experience having worked on IP such as *SingStar*, *Gran Turismo*, *Little Big Planet*, and *Wipeout*. More recently he lead Activison Blizzard's European department working on *Guitar Hero*, *DJ Hero* and other titles famed for their use of licensed tracks.

"I'm extremely excited to be heading up Nimrod's Music Supervision arm and working with one of the most talented audio companies in the industry. The raft of services Nimrod offer cover the whole spectrum of audio needs," said Pimentel.

www.nimrodproductions.com

Eurocom, the longstanding independent UK studio, will now offer its motion capture facility to external studios.

Use of its in-house mocap studio is being offered to external game and movie clients. Eurocom offers real-time pre-visualisation services with virtual cameras and glasses, and is fully equipped with fight harness, sports flooring and scaffolding.

"We've been really impressed with the results from our internal mocap studio, and we are now letting external studios take advantage of the team's five years of experience meticulously capturing body and facial performances," said Eurocom MD Mat Sneap.

www.eurocom.co.uk

UK-based services and audio production studio **Side** has announced its collaborative involvement in the audio development for both *Dragon Age II* and *Total War: Shogun 2*.

The company outlined close working relationships that were built up with both BioWare and The Creative Assembly, with voice acting recording sessions taking place in London and Tokyo, and a large array of international voice actors working with Side on the titles during the development process.

"Having spent so many months during 2010 working on these two fantastic franchises, it's really very rewarding to finally see the games released to such critical acclaim," said Side creative director Andy Emery.

www.sideuk.com

Former Capcom development head Keiji Inafune has unveiled websites for his two new companies, **Comcept** and Intercept.

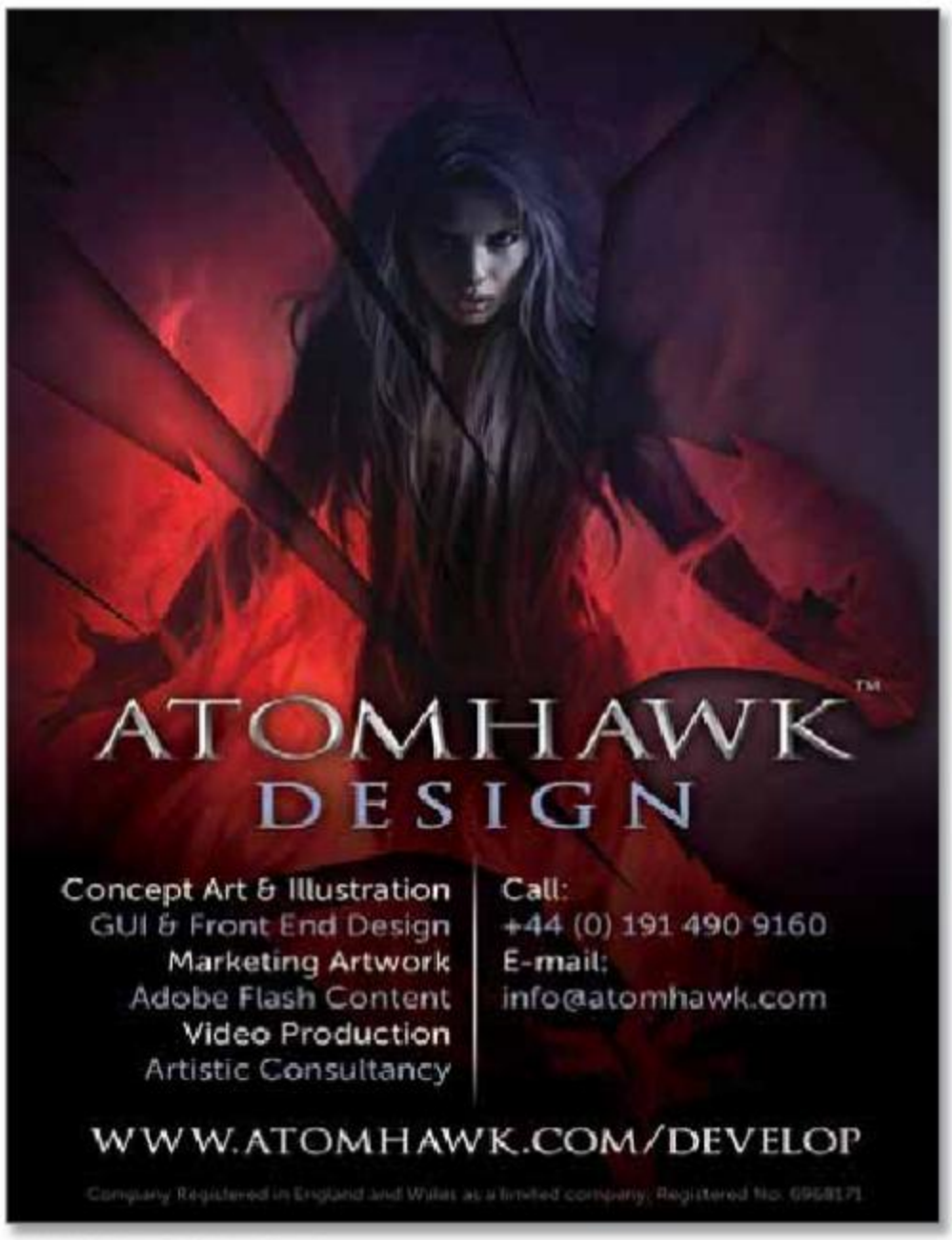
Intercept is a Tokyo-based game production firm which Inafune has described as "my new challenge for consumer game development."

The company is based in the Shinagawa area of the city and is boasting capital of ¥10m, as is the more general entertainment production firm Comcept, also based in Tokyo.

The latter firm is based in central area of Tokyo, with an Osaka branch office. It will cover areas as varied as videogames, DVDs and books.

www.comcept.co.jp

Atomhawk +44 (0) 191 490 9160 www.atomhawk.com/develop



inComm +44 (0) 1489 556700 www.incomm-europe.com

TRAINING NEWS

This month: Skillset and the Livingstone-Hope Review

Education body **Skillset** has given a tenth UK course its rare seal of approval.

The 'Skillset Tick' has been awarded to the University of Abertay in Dundee, Scotland, for its Professional Masters in Computer Games Development course.

The Livingstone-Hope Review recently found that graduates from Skillset-accredited courses were nearly three times as likely to find a job in the games industry in their first six months, when compared to game dev graduates from non-accredited courses.

This new approval means that ten university courses in the UK are accredited using Skillset's "industry-endorsed" marking system.

Abertay University dominates the Skillset list of ten UK courses, taking four places on the list.

The latest addition, Abertay's year-long Master's course enables students to work in small specialist development teams developing innovative games prototypes, often in response to direct briefs from industry.

"Abertay's formula of continuing to ensure that the needs and involvement of games developers is at the heart of their courses has made them a beacon of best practice in the field of computer games education," said Eidos life president Ian Livingstone.

www.abertay.ac.uk

Government departments are favouring key recommendations made in the **Livingstone-Hope Skills Review**, the paper's co-author has said.

Ian Livingstone, who helped write and publicly backed the NESTA review, has told *Develop* that the Treasury will publish a response to the paper in a matter of months.

"We've had a call from the Treasury to talk through measures and recommendations that have now been set out in the budget around the both digital and creative industries. They include a promised response to our report, which is excellent news," Livingstone said.

"We are still keen to talk with [Education secretary] Michael Gove but have not been able to so far," he added.

The Skills Review makes twenty recommendations that are hoped can dramatically improve academia's relationship with the games industry. Independent data shows that fewer graduates who want game dev jobs have the "necessary skills" in computer science, maths and physics.

Eidos life-president Livingstone explained that Skills Review progress was also made in last week's Budget.

The Budget paper promised to "improve the stock of skills in the digital and creative industries".

Another Treasury measure outlined is to "focus STEMNET's future recruitment of STEM Ambassadors on the digital and creative industries and other priority growth sectors."

The Treasury also said it will "publish information for businesses on how they can support an employee undertaking university study to meet their high level skill needs".

One of the most transformative recommendations – to introduce computer science into the National Curriculum – has not yet had a response.

www.nesta.org

Partnertrans +44 (0)1273 229030 www.partnertrans.com

The University of Hull +44(0) 1482 465951 www.mscgames.com

MSc Games Programming
Hardcore Games Programming, Physics and AI
Your fast track to a job as a games programmer
www.MScGames.com
"The course is rigorous and demanding, but in the end worth the hard work. I got two job offers from leading companies in the games industry within a month of completing my course. The best part is that I didn't really have to struggle to get them." Hussain Sheikh 2006 MSc
For more quotes from ex-students, examples of student work and syllabus information please visit www.mscgames.com.
PhD and BSc study also available.
Image courtesy of Codemasters. All rights reserved.
THE UNIVERSITY OF HULL

develop

INDUSTRY EXCELLENCE AWARDS

Wednesday, July 20th, 2011

Hilton Brighton Metropole Hotel

Tickets: Kathryn.Humphrey@intentmedia.co.uk
Sponsorship: Alex.Boucher@intentmedia.co.uk

SUPERMASSIVE GAMES — Gold Partner

amiqus — Gold Partner

BABEL — Development Legend Partner

gamecity:Hamburg — Event Partner

opm recruitment — Table Gift Partner

CODA

A sideways look at the games industry...

THE INDUSTRY
IN 140 CHARACTERS

A month in tweets by the industry elite

@DCDeacon
10 weeks until E3. If youre working on something for the show and haven't started panicking yet, you're more behind than you thought.
(Pete Hines, Bethesda)
Wednesday, March 30th

@terrycavanagh
Found myself saying "Good boy!" to my Nintendog. There's no reason to do this; the game doesnt understand it or anything.
(Terry Cavanagh, VVVVV developer)
Monday, April 11th

@acton
There was a single pistachio nut placed directly outside my hotel door this morning. I think it's a warning from the squirrel mafia
(Michael Acton Smith, Mind Candy)
Tuesday, April 5th

@notch
Hi code, I've missed you! *hugs private volatile boolean sending;*
(Markus Persson, Mojang Specifications)
Tuesday, April 12th

@StephenMangan
How difficult is it to write an iPhone app? Got a great idea for a strategy game called "*Vajazzled*".
(Stephen Mangan, actor)
Wednesday, April 6th

@adrianchm
CityVille players: 95% - casuals, 5% hardcore game devs trying to figure out wtf just happened.
(Adrian Chmielarz, People Can Fly)
Thursday, April 14th

@stewartgilray
How the fuck does someone get quoted in the Twitter digests in *MCV* or *Develop*? A lot of it is tosh :)
(Stewart Gilray, Just Add Water)
Friday, April 8th

@ibogost
I wonder when Valve will reveal that Cow Clicker is actually Portal 2.
(Ian Bogost, Persuasive Games)
Monday, April 18th

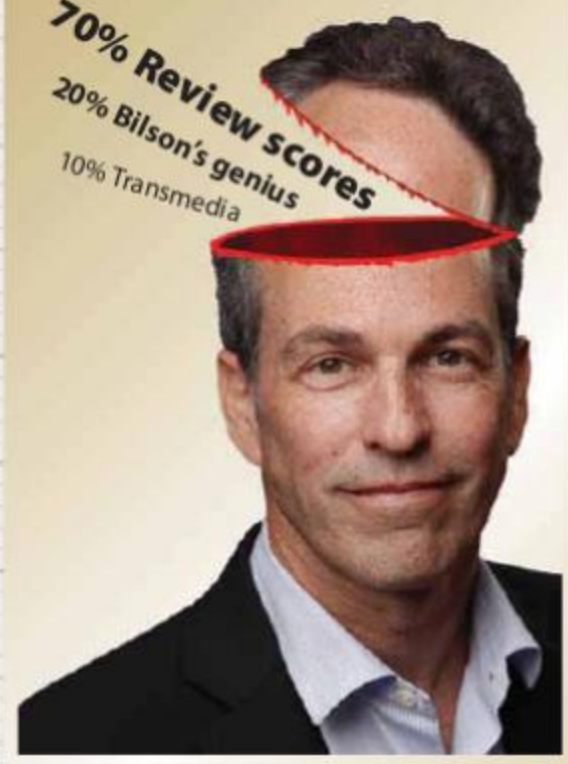
@Mizuguchitter
After my presentation *Child of Eden*. Thanks London, thanks BAFTA! twitpic.com/4ioub9
(Tetsuya Mizuguchi, Q Entertainment)
Saturday, April 9th

@robinlacey
So, apparently, The New Zealand Story was not, in fact, the actual story of New Zealand.
(Robin Lacey, Beatnik Games)
Thursday, April 21st

AN OPEN MIND

Danny Bilson

Based on his interviews



Speaking to *IGN* about *Homefront's* critical reception: "Do I prefer that it's controversial? No, I'd prefer if everybody in the world loved it. But there are 20+ reviews that are over 80, there are some haters, and there are some mid-range ones. Do I read them all to see what we can do better next time and have every review be 100? Of course, our goal is always that. What I will say pretty clearly is the game is not a 71. You can't apply math to art."

Telling *Gamespot* about the fact he's an executive that plays lots of games: "In the game industry, it makes me a genius."

Letting *VentureBeat* know how he feels about his favourite topic: "What I care about on transmedia is whether it's going to be good, since that is the risk. It's bad if it cheapens the brand or content."

IT FIGURES: Android

In the last three months Google has seen one billion apps downloaded, pushing the increasingly popular platform past the three billion app downloads milestone. Android needed some 20 months to hit its first billion apps milestone, meaning its growth is now accelerating rapidly, with the installed app total climbing 50 per cent in one financial quarter. Now Google is seeing some 350,000 Android phones being activated each day, up from 100,000 per day in May 2010. Apple, by comparison, reached its 10 billionth iOS app download in January.
www.android.com

REWIND

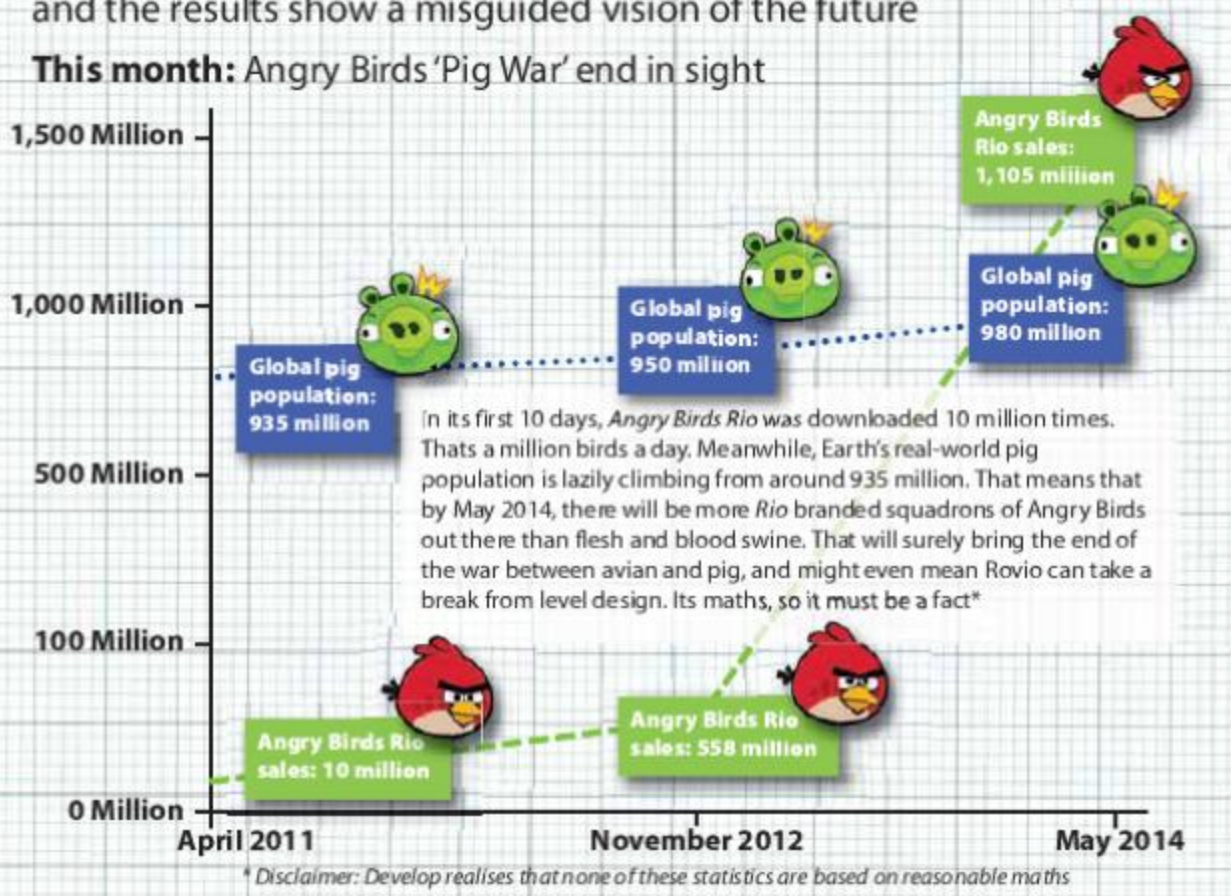
A year in video games: 2000

A look back at a time when things were a great deal simpler for those of us making video games

Wrong Numbers

Stats can be misleading. Forward-project the trends from April 2011 and the results show a misguided vision of the future

This month: Angry Birds 'Pig War' end in sight



In its first 10 days, *Angry Birds Rio* was downloaded 10 million times. Thats a million birds a day. Meanwhile, Earth's real-world pig population is lazily climbing from around 935 million. That means that by May 2014, there will be more *Rio* branded squadrons of Angry Birds out there than flesh and blood swine. That will surely bring the end of the war between avian and pig, and might even mean Rovio can take a break from level design. Its maths, so it must be a fact*

** Disclaimer: Develop realises that none of these statistics are based on reasonable maths*

DEVIPEDIA

Dissecting the hyperbole of games development

Persuasive Games

per.sua.sive games – adjectival phrase

What 'they' think it means:
Persuasive games don't just let consumers play; they 'make arguments and influence players', and in doing so 'realise an entirely original model of rhetoric', called 'procedural rhetoric'. In short, video game platforms, in 'running processes and executing rule-based symbolic manipulation', do something apparently very special; they 'represent how real and imagined systems work', and invite players to form judgments.

What it really means:
Academics love to make simple ideas about video games that everybody should have a chance to explore impenetrable and inaccessible with an excess of intellectual willy waving and word acrobatics.

■ ...while SNK closes up shop
■ Microsoft purchases Bungie
■ The PS2 hits retail in Japan
■ Nintendo sells its 100 millionth Game Boy

develop
FORWARD PLANNER

June 2011
Middleware
Trends and new releases in third party tech, tools and engines

Regional Focus: Nordic
We look at games development across Scandinavia and the related countries (Norway, Sweden, Denmark, Iceland and Finland)

Event:
E3 – June 7th to June 9th

July 2011
Regional Focus: Guildford
One of UK games dev's many famed clusters goes under the Develop microscope

Events:
Develop Conference – July 19th to July 21st

August 2011
Visual Arts/CG/Game Graphics
New techniques and tech for cutting edge in-game visuals

Regional Focus: Germany
A profile of the German games sector to accompany GDC Europe/Gamescom

Event:
GDC Europe – August 15th to August 17th
Gamescom – August 17th to August 21st

September 2011
Artificial Intelligence
The new tricks and tools developers are using to make characters think

MMOs/Online Technology
A round-up of all the new trends and technologies in connected games

Regional Focus: Northern England East & West
Whats new in key hubs including Liverpool, Leeds, Sheffield and Newcastle

October 2011
Regional Focus: London
A fresh look at games development in the UK's capital city

Events:
GDC Online – October 10th to October 13th
London Games Festival - Dates TBC

November 2011
Region Focus: Canada
From Quebec to Vancouver, this overview profiles all the key Canadian studios

Event:
London Games Conference – November 3rd (details TBC)

EDITORIAL enquiries should go through to Michael.French@intentmedia.co.uk. Or call him on 01992 535646

To discuss **ADVERTISING** contact Alex.Boucher@intentmedia.co.uk, or call him on 01992 535647

amiqus
We Know Your World

THE FAQ PAGE: BRENDA BRATHWAITE

Develop grills respected figures from the global development sector…

Game design legend Brenda Brathwaite, who isn't opposed to being serenaded by eight men

Who are you and what do you do?
I'm Brenda Brathwaite, game designer, and co-founder and COO at Loot Drop. I work with some incredible people to make social games.

What are you working on right now?
Wow. Since we're in start up mode, the answer feels like it should be, 'What am I not working on?'. This week alone, I've finalised two contracts for games, completed a system design for John Romero's upcoming game – an unannounced Facebook game to be published by RockYou – and talked to a few artist candidates. I'll be starting on my own game sometime in May. It's definitely a really exciting time.

What was the first video game or product that you ever worked on in the industry?
Wizardry: Proving Grounds of the Mad Overlord at Sir-Tech Software. It later became better known as *Wizardry 1*, but back then we weren't figuring it would have seven sequels.

What was the first video game you ever played, and did you enjoy it?
I remember playing *Pong* at the local bowling alley in Ogdensburg, New York, where I grew up. Later, I borrowed a friend's game system and played *Pong* on it with my mom. I remember talking with her about how amazing it was that this make-believe line could catch this make-believe ball and bounce it back. It felt magic to me. Game development still very much does. Just yesterday, Chris Burke, the lead coder on John's game, was showing the implementation of a system I wrote, and I had that very thought. Making games, playing games, still has the same enjoyment for me.

> ***"I love the social game space, really. It's different than any other type of design I have done, and even more challenging."***
>
> Brenda Brathwaite, Loot Drop

What is your favourite game ever, and for what reason?
Ghost Recon, 2001, on which Brian Upton was lead designer, recently took the title from *Civilization*. The game is just so incredibly well done. The AI is responsive and keeps me guessing. It allows for excellent co-op and deathmatch play, and offers a type of play not commonly available in shooters. John and I are over 170 hours into the game in the last year alone, and are currently playing the game on 'elite' level with fewer than five total team deaths. When we finish this run, we'll try to play the perfect game on elite. Even with all those hours in, we still see new things and behaviours which surprise us. It and its two expansions, *Desert Storm* and *Island Thunder*, are amazing.

What do you enjoy about the video games industry today?
All the same things I've always enjoyed – making a game and seeing it come to life just never, ever gets old. I love the social game space, really. It's different than any other type of design I have done, and even more challenging. It's wonderful to make games for a target audience that includes me. That said, I am sure that at some point in the future, I'll make some hardcore games again.

What disappoints you about the video games industry today?
We are in a period of transition in the social space where there are a lot of web app people who don't necessary even like games but are nonetheless 'designing' them. It's an unpleasant time for a great many creatives from our space, if the emails I receive are any indication. I expect that we'll be in this period of transition for at least another year or two.

What hobbies, collections or interests do you have that are completely unrelated to video games?
Mexican food and culture. As a Northern New York transplant to California, Mexican food is totally new to me. There are so many great Mexican restaurants locally, and when we travel, we use Yelp to find great Mexican restaurants on the road and maintain a catalogue of sorts on our finds, likes and dislikes. I also find the culture just incredibly welcoming, wonderful, fun and celebratory. On Sundays, I usually go to a local place to see an eight-piece mariachi band, and I can't get over how beautiful the music is. I get serenaded at my table by eight men. How can it get any better than that?

amiqus We Know Your World amiqus.com

develop
THE INTERNATIONAL MONTHLY FOR GAMES PROGRAMMERS, ARTISTS, MUSICIANS AND PRODUCERS

Editor-in-Chief
Michael French
michaelfrench@intentmedia.co.uk

Deputy Editor
Will Freeman
willfreeman@intentmedia.co.uk

Staff Writer
Stuart Richardson
stuart.richardson@intentmedia.co.uk

Online Editor
Rob Crossley
rob.crossley@intentmedia.co.uk

Sales Manager
Alex Boucher
alexboucher@intentmedia.co.uk

Production Manager
Suzanne Powles
suzanne.powles@intentmedia.co.uk

Designer
Dan Bennett
dan.bennett@intentmedia.co.uk

Publisher
Stuart Dinsey
stuart.dinsey@intentmedia.co.uk

Managing Editor
Lisa Foster
lisa.foster@intentmedia.co.uk

Contributors Richard Aitkin, Simon Ashby, Richard Beddow, David Braben, John Broomhall, Phil Evans, Rick Gibson, Tatiana Kruse, Sylvain Liege, Michael Moore, Naruto Nishizawa, Mark Rein, Jon-Paul Waddington,

intentmedia
Intent Media is a member of the Periodical Publishers Association

CIRCULATION IS OVER 8,000

Tel: 01992 535646 **Fax:** 01992 535648 **Web:** www.develop-online.net

Develop Magazine. Saxon House, 6a St Andrew Street. Hertford, Hertfordshire. SG14 1JA
ISSN: 1365-7240 Copyright 2011 Printed by The Manson Group, AL3 6PZ

Subscription UK: £35 Europe: £50 Rest of World: £70
Enquiries, please email: dev.subscriptions@c-cms.com Tel: 01580 883 848

Charges cover 11 issues and 1st class postage or airmail dispatch for overseas subscribers

Develop is published 11 times a year, reaching 8,000 readers throughout the UK and international market

PLAYGROUND GAMES ARE HIRING

www.playground-games.com/careers

We set Playground Games up to create high quality console titles for a global audience.

But we can't do it on our own.

We need developers who share our ambitions and can help us achieve them.

To those who join us, we offer a highly competitive package. We pay top salaries and our royalty scheme includes every member of the team. We also offer a contributory pension scheme, private health care, life assurance, childcare vouchers and duvet days as standard.

"When Bizarre closed, I knew I wanted to continue making high quality AAA titles and Playground was one of only two studios in the UK where I felt I could do this. I was hugely impressed that a young company had secured such a massive project and the challenge was too great to resist."

CHRIS DOWNEY
LEAD ENVIRONMENT ARTIST
JOINED FROM BIZARRE CREATIONS

"I was looking for a new challenge in my career, and Playground showed exactly the kind of ambition I was after. It offered the chance to broaden my horizons and try something new. Most importantly, Playground isn't about conforming to genre expectations, it's about defining them."

PAUL PENSON
LEAD UI ENGINEER
JOINED FROM CODEMASTERS

T 01926 338 338 E tellmemore@playground-games.com

@WeArePlayground **Follow us** on LinkedIn and Facebook

Playground Games

see inside front for more...

PLAYGROUND GAMES *ARE HIRING*

www.playground-games.com/careers

ARTISTS

Lead Vehicle Artist
Lead Character Artist
Senior Environment Artists
Environment Artists
Senior Technical Artist
Senior UI Artist

DESIGNERS

Lead Level Designer
Lead Car Handling Designer
Game Designer
Lead Audio Designer

ENGINEERS

Lead Tools Engineer
Senior Rendering Engineers
Senior Online Engineers
Senior Engine Engineer
Senior Tools Engineer
Senior Audio Engineer
AI Engineer
Gameplay Engineer

PRODUCTION

Producer
Project Planner

SUPPORT

Lead QA Technician
Office/HR Manager
Researcher

Playground Games

T 01926 338 338 E tellmemore@playground-games.com

@WeArePlayground **Follow us** on LinkedIn and Facebook